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TELECOMMUNICATIONS CENTER PERFORMANCE AND TECHNICAL EVALUATIONS--ETC(U)
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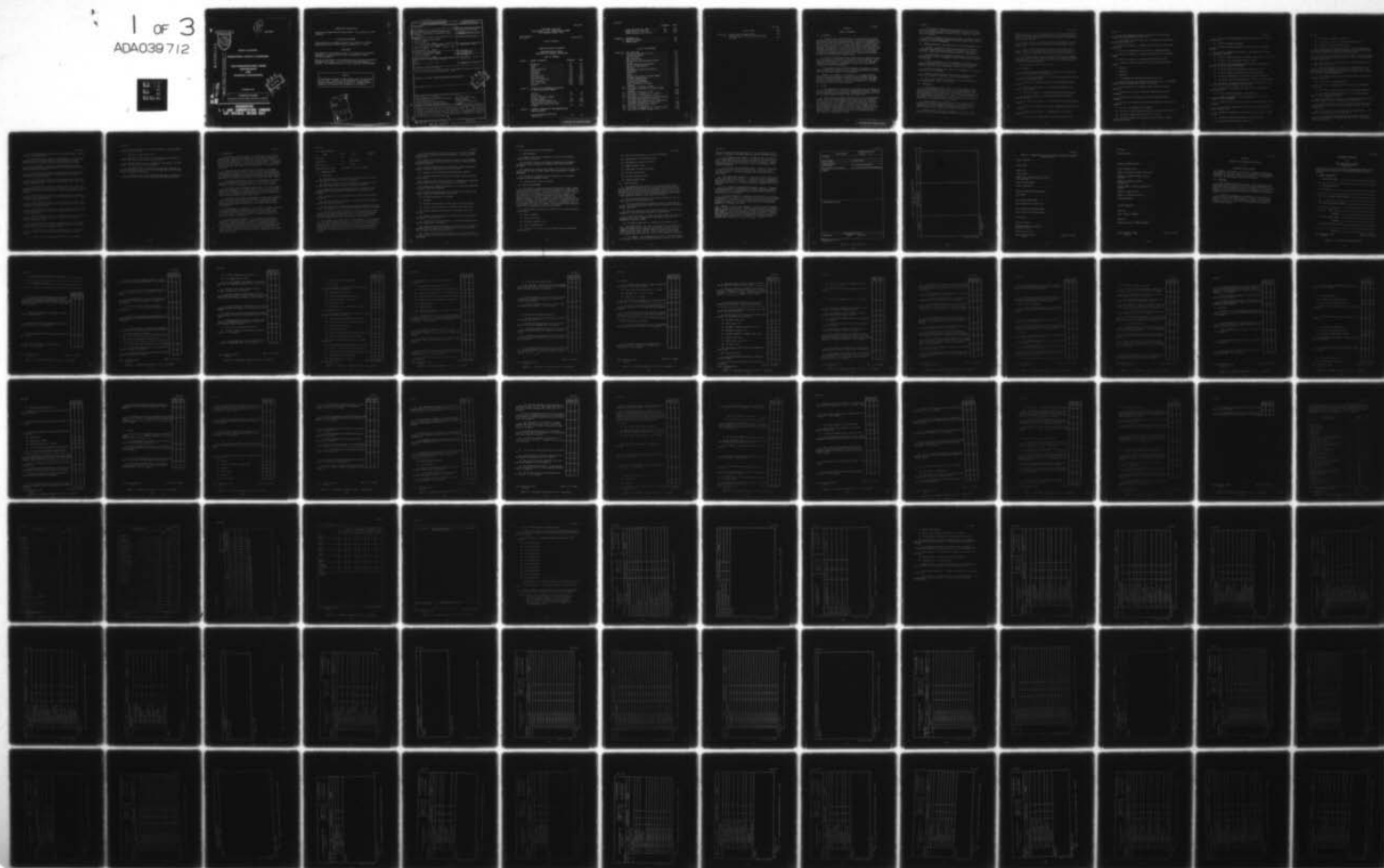
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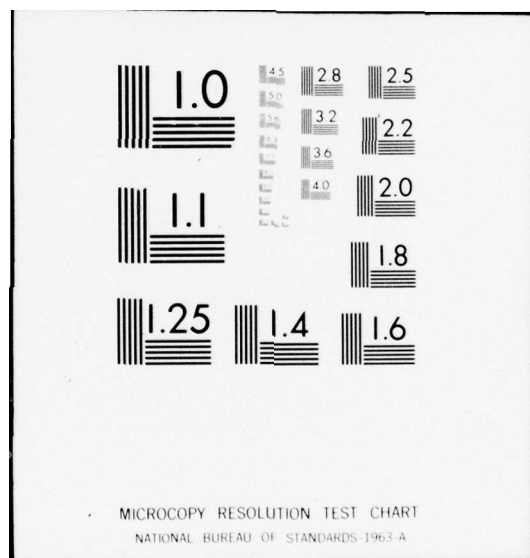
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OPERATIONAL QUALITY ASSURANCE
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31 MARCH 1977

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20. ABSTRACT (Continue on reverse side if necessary and identify by block number) The information contained in this pamphlet centers around the evaluation and optimization of major items of equipment associated with the telecommunications center (TCC). The parameters and test procedures focus on major TCC equipments. Test procedures pertaining to mode 1 and mode V terminals encompass the Army Telecommunications Automation Program level I and portions of level II equipment. A performance evaluation of TCC functions is also included.		

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31 March 1977

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TELECOMMUNICATIONS CENTER
PERFORMANCE AND TECHNICAL EVALUATIONS

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CHAPTER 1

GENERAL INFORMATION

1-1. BACKGROUND.

a. In past years, considerable effort has been given to assessing and monitoring the quality of performance of the Defense Communications System (DCS) transmission media and network. However, only minimal effort has been expended on the non-DCS areas especially on a systems concept that interfaces with the DCS. Recently, the quality assurance (QA) program has been expanded to cover non-DCS areas such as base cable and dial telephone exchange (DTE). Equally important, however, is the necessity to measure and evaluate the quality and reliability of service being provided by telecommunications centers (TCC's) operated and maintained by the US Army Communications Command (USACC).

b. The TCC's interfacing the DCS through various transmission media can and do seriously degrade the performance of the DCS network. Therefore, the primary goals of this pamphlet are to resolve TCC interface problems and to establish standardized procedures for evaluating TCC technical and operating performance.

c. The material contained in this pamphlet is basically a compendium of instructional notes, extracts of applicable publications, standards and procedures relative to TCC performance.

1-2. PURPOSE. The purpose of this pamphlet is to provide technical evaluation program/performance evaluation program (TEP/PEP) test teams with the necessary procedures to evaluate and optimize the performance quality of non-DCS TCC's and to assure that quality service is being provided the customer by these facilities.

1-3. SCOPE.

a. This pamphlet is written from the viewpoint that the nontactical TCC is an integral part of the overall communications system. Therefore, optimum performance can be obtained by integrating the efforts of all the QA test teams (wideband, AUTODIN, ATEP, base cable, DTE).

b. Since this "total system" approach is still in its developmental stages and the envisioned program will encompass all areas outside of the TCC, the scope of this pamphlet will center around the evaluation and optimization of major items of equipment associated with the TCC. The equipment tests and checklists contained in this pamphlet are primarily directed toward equipment verification and an operational performance evaluation. Technical tests to characterize the overall TCC operation from a "total system" concept are to be provided as part of this pamphlet as requirements develop.

c. TCC equipment configurations are determined primarily by the mission requirements in their area of operation. Therefore, the parameters and testing procedures set forth in this document will focus on major TCC equipment.

d. The test procedures pertaining to the mode I and mode V terminals encompass the Army Telecommunications Automation Program (ATCAP) level I and portions of level II equipment.

1-4. PROGRAM OBJECTIVES. The objectives of the TCC QA programs are to:

a. Optimize, characterize, identify and/or repair all defective or marginal communications and electronics components that impair or disrupt the quality and efficient handling of written communications.

b. Provide HQ USACC and subordinate commands with a technical data base which can be used as a management tool in establishing an effective TCC QA program.

c. Provide information to the O&M commanders of equipment discrepancies or procedural methods which are inconsistent with established standards resulting in less than premium service to the customer.

d. Develop and implement cost-effective recommendations for system improvements and effectiveness.

e. Evaluate, develop and apply improved test techniques and procedures in the areas of operations, logistics and maintenance.

f. Provide over-the-shoulder training for onsite personnel when the schedule permits. (Ref: CCR 702-1-3.)

1-5. TERMINOLOGY.

a. Telecommunications Center (TCC) - a facility normally serving more than one organization which integrates the communications center and the message processing functions of the message center into the operating scheme of the communications center, under the managership of the communications-electronics officer (para 5c, AR 105-1). The TCC is responsible for the transmission, receipt, acceptance, processing and distribution of incoming and outgoing messages.

b. Terminal Operation - that function of a TCC concerned with operating the electrical input/output devices, associated processors, communications security (COMSEC) equipment and other communications terminal equipment for receiving and transmitting messages.

c. Message Center - the facility integral to a TCC which is the interface point for message processing functions between the action

office and the TCC. The TCC message center is the only facility having common user message processing responsibilities. The message center of the TCC serves any authorized user in the service area of a headquarters, command or installation.

d. Mode I - duplex synchronous operation with automatic error and channel controls which allow for independent and simultaneous two-way traffic flow.

e. Mode V - duplex asynchronous operation, also called the teleprinter controlled mode, which offers character framing, detection, channel controls and independent and simultaneous two-way traffic flow.

f. RED/BLACK Concept - those electrical and electronic circuits, components, equipments and systems that handle classified plain language information (RED) as opposed to those circuits that handle encrypted or unclassified information (BLACK).

g. Other terms - refer to TM 11-490-2.

1-6. REFERENCES.

a. (C) ACP 100 (Allied confidential), Allied Call Sign and Address Group System Instructions and Assignments (U).

b. (C) ACP 100, US Suppl-1(), US Call Sign and Address Group System Instructions and Assignments (U).

c. (C) ACP 117() (Allied restricted), Allied Routing Indicator Book (U).

d. ACP 117, CAN-US Suppl-1(), Allied Routing Indicator Book Canada - United States.

e. ACP 117, US Suppl-1(), United States Routing Indicator Book.

f. ACP 117, US Suppl-2(), Routing Indicator Book for Mobile Commands and Units.

g. (C) ACP 117, US Suppl-4(), US Special Purpose Routing Indicator Book (U).

h. (C) ACP 121() (Allied restricted), Communications Instructions, General (U).

i. (C) ACP 121, US Suppl-1(), Communications Instructions, General (U).

j. (C) ACP 122(), Communications Instructions, Security (U).

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k. ACP 126() (Allied restricted), Communications Instructions, Teletypewriter (TELEPRINTER) Procedures (U).

l. (C) ACP 127() (Allied restricted), Communications Instructions, Tape Relay Procedures (U).

m. ACP 127, US Suppl-1(), Communications Instructions, Tape Relay Procedures.

n. ACP 131(), Communications Instructions - Operating Signals.

o. ACP 131, US Suppl-1(), Communications Instructions - Operating Signals.

p. ACP 167(), Glossary of Communications-Electronics Terms.

q. JANAP 128, Automatic Digital Network (AUTODIN) Operating Procedures

r. KAM-143B.

s. KAM-176C.

t. KAM-235A.

u. (C) MIL-HDBK-232, RED/BLACK Engineering Guide (U).

v. MIL-STD-12C, Military Standard, Abbreviations for Use on Drawings, Specifications, Standards and in Technical Documents.

w. DCAC 310-D70-30, DCS AUTODIN Switching Center and Tributary Operations.

x. DCAC 350-135-1, Defense Commercial Communications Leasing Procedures.

y. DOD 5200.1-R, DOD Information Security Program Regulation (DODISPR).

z. AR 18-7, Data Processing Installation Management, Procedures, and Standards.

aa. AR 105-1, Telecommunications Management.

ab. (C) AR 105-7, Quick Reaction Capability for Electronic Warfare (U).

ac. AR 105-10, Communications Economy and Discipline.

ad. AR 105-17, Nontactical Telecommunications Facilities Standard Operating Procedures.

ae. AR 105-22, Telecommunications Requirements Planning, Developing and Processing.

af. AR 105-31, Message Preparation.

ag. AR 105-32, Authorized Addresses for Electrically Transmitted Messages.

ah. AR 105-34, Reduction and Control of Telecommunications Traffic in an Emergency (MINIMIZE).

ai. AR 190-11, Physical Security of Weapons, Ammunition, and Explosives.

aj. AR 190-13, The Army Physical Security Program.

ak. AR 310-20, Allied Communications Publications (ACPs) and Joint Army-Navy-Air Force Publications (JANAPs).

al. AR 310-50, Authorized Abbreviations and Brevity Codes.

am. AR 310-75, Defense Communications Agency Publications.

an. AR 340-16, Safeguarding "For Official Use Only" Information.

ao. AR 340-18-1, The Army Functional Files System General Provisions.

ap. AR 340-18-5, Maintenance and Disposition of Intelligence, Security, Military Police, and Mapping Functional Files.

aq. AR 340-18-11, Maintenance and Disposition of Communications Functional Files.

ar. AR 350-1 w/USACC Supplement 1, Army Training.

as. AR 380-5, Department of the Army Supplement to DOD 5200.1R (DODISPR) w/USACC Supplement 1.

at. AR 380-26, Policy for Use of Encrypt-for-Transmission-Only (EFTO) Procedure.

au. (C) AR 380-40, Department of the Army Policy for Safeguarding COMSEC Information (U).

av. AR 380-41, Department of the Army Policy for Control of COMSEC Materiel.

aw. AR 385-64, Ammunition and Explosives Safety Standards.

ax. AR 420-90, Fire Prevention and Protection.

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- ay. (C) AR 530-1, Operations Security (U).
- az. (C) AR 530-4, Control of Compromising Emanations (U).
- ba. AR 600-10, The Army Casualty System.
- bb. DA PAM 310-1, Military Publications, Index of Administrative Publications (Regulations, Circulars, Pamphlets, Posters, General Orders, Joint Chiefs of Staff Publications and DOD Publications).
- bc. DA Pam 310-4, Military Publications, Index of Technical Manuals, Technical Bulletins, Supply Manuals (Types 7, 8 and 9), Supply Bulletins and Lubrication Orders.
- bd. DA Pam 310-7, Military Publications, US Army Equipment Index of Modification Work Orders.
- be. MWO 11-5815-244-40-1, Modification of Teletypewriter Sets AN/FGC-25 and -25X; Teletypewriters TT-117, A, B, C/FG; -119, A, B/FG; and Reperforator-Transmitters, Teletypewriters TT-178, A, B/FG; -179, A, B/FG to Permit Low-Level Operations.
- bf. (C) TB 530-1, Identification and Application of Compromising Emanation Control (U).
- bg. TBAG 4, Office Copying Equipment.
- bh. TM 11-490-1, Telecommunications Center Guide to Procedural Publications.
- bi. TM 11-490-2, Telecommunications Center Operating Procedures.
- bj. TM 11-5805-423-15, Organizational DS, GS and Depot Maintenance: Modem, Telegraph MD-700(P)/G.
- bk. TM 11-5805-424-15, Operator's, Organizational DS, GS and Depot Maintenance Manual: Modem, Low Speed Wire Line MD-674(P)/G.
- bl. TM 11-5815-244-12, Operation and Organizational Maintenance: Teletypewriter Sets AN/FGC-25, -25X, -26, -26X, -52, -52X, -57, -68, -161 and -162.
- bm. TM 11-5815-244-35, Field and Depot Maintenance Manual: Teletypewriter Sets AN/FGC-25, -25X, -26 and -57.
- bn. TM 11-5815-335-12, Operator and Organizational Maintenance Manual Including Repair Parts and Special Tools Lists: Teletypewriter Control Unit C-7050/G.

bo. TM 11-5895-543-35, Organizational Maintenance Manual: Synchronizer, Electrical SN-394(V)/G.

bp. TM 11-7440-214-15, Operator, Organizational, DS, GS and Depot Maintenance Manual Including Repair Parts and Special Tools Lists: Common Control Unit C-8120(P)/G and Circuit Switch Module SA-1493/G.

bq. TM 11-7440-215-15, Operator's, Organizational, DS, GS and Depot Maintenance Manual Including Repair Parts and Special Tools Lists: Reader, Punched Card RP-152/G.

br. TM 11-7440-217-15, Operator, Organizational, DS, GS and Depot Maintenance Manual Including Repair Parts and Special Tools Lists: Card Punch, High Speed RO-312/G.

bs. TM 11-7440-218-15, Operator, Organizational, DS, GS and Depot Maintenance Manual Including Repair Parts and Special Tools Lists: Card Punch, Low Speed RO-313/G.

bt. TM 11-7440-219-15, Operator, Organizational, DS, GS and Depot Maintenance Manual Including Repair Parts and Special Tools Lists: Reader, Punched Tape RP-154(P)/G and Transmission Identification Generator Kit MK-1583/G.

bu. TM 11-7440-221-15, Operator, Organizational, DS, GS and Depot Maintenance Manual Including Repair Parts and Special Tools Lists: Paper Tape Punch, High Speed RO-314/G.

bv. TM 11-7440-222-15, Operator, Organizational, DS, GS and Depot Maintenance Manual Including Repair Parts and Special Tools Lists: Paper Tape Punch, Low Speed RO-315/G.

bw. TM 11-7440-223-15, Operator's, Organizational, DS, GS and Depot Maintenance Manual Including Repair Parts and Special Tools Lists: Printer, Page RP-157/G.

bx. TM 11-7440-228-15, Operator's, Organizational, DS, GS and Depot Maintenance Manual Including Repair Parts and Special Tools Lists: Control - Keyboard C-7185/G.

by. TM 11-7440-238-15, Operator, Organizational, DS, GS and Depot Maintenance Manual: Digital Subscriber Terminals AN/FYA-71(V)1 through AN/FYA-71(V)6 and Device Switch Module SA-1616/G.

bz. TM 11-7440-239-15, Operator's Organizational, DS, GS and Depot Maintenance Manual: AUTODIN Digital Subscriber Terminals (Station Manual).

ca. TM 38-750, The Army Maintenance Management System (TAMMS).

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cb. CCR 105-7, Software Development and Support of USACC Automated Telecommunications Systems.

cc. CCR 385-1, Communications Safety.

cd. CCR 702-1-3, USACC Quality Assurance Program for Operational Communications-Electronics Systems and Facilities.

ce. CCC-TED-74-TP-137, Univac DCT 9000 Disc System Mode I, AUTODIN Terminal Test Procedures (with Dual Homing).

cf. CCC-TED-75-TP-194, Operational Acceptance Test of Univac DCT 9000 AUTODIN Terminal, Mode I Test Plan, with Suppl 24K "SEES" Interface Software Package Test Procedures.

cg. CCC-TED-75-TP-205, Operational Acceptance Test of Optical Character Reader (OCHRE) Control Data Corporation 1700 System Test Plan.

1-7. DISCUSSION.

a. Prior to the actual evaluation, the individuals responsible for conducting the evaluation will insure that all necessary test equipment and associated connectors are on hand and in good working condition. A check will be made to insure that all forms and data sheets are available, and that they are adequate to complete the required report. In addition, the test team chief will prepare a provisional plan for conducting the evaluation.

b. A test notification message will be provided to the command being evaluated at least 45 days in advance of the scheduled evaluation. This message will outline the tests to be performed, test team members, test equipment requirements, transportation and other logistical support required to be performed by the operation and maintenance (O&M) command.

c. An entrance and exit briefing will be provided the O&M commander or his representative by the test team chief. The content of these briefings is covered in paragraph 1-9a (7) and (8) of this pamphlet.

d. The initial station evaluation should consist of a general walk-through and orientation. A suitable working location for the evaluation team will be established in coordination with station personnel. This location must be selected to minimize interfering with the working space used by station personnel in their daily duties.

e. Evaluating, optimizing and documenting the performance capability of the TCC's within this command are essential to insure that quality service is being provided the subscriber. This program, when fully implemented, will improve operations and fill another void in the non-DCS QA program.

f. This pamphlet is comprised of three chapters. Chapter 1 consists of background and general guidelines; chapter 2 is a checklist for performance evaluation of TCC's and chapter 3 describes those tests that are required to determine equipment performance capability (see para 1-3b). (Ref: CCR 702-1-3.)

g. Contractor-owned equipment will be checked for input/output operational performance (chap 2). Government-owned equipment will be exposed to a complete technical evaluation as described in chapter 3. All anomalies and problem areas that are not corrected during the course of the evaluation will be fully documented along with recommended corrective action. This data can then be used to determine the best possible course of action on a site-by-site basis, considering the problems noted in the report.

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1-8. TEAM COMPOSITION.

TITLE	GRADE	MOS	QUANTITY
Team Chief	WO	721A	1
Team NCOIC	E7	32G40 H6/M2	1
DSTE Repairman	E6	34F40	1
Operations NCO/Civilian	(Provided by local O&M command)		

1-9. RESPONSIBILITIES.

a. Team Chief.

(1) Supervises the test team activities and insures that all data is collected and analyzed in an effective manner.

(2) Implements deviations from established test procedures as may be required to insure that test data is complete and valid.

(3) Assists the test team technicians in the setting up of test equipment whenever deviations from established test procedures are required.

(4) Insures that all test equipment is accounted for and properly maintained.

(5) Provides technical assistance to onsite maintenance personnel in improving system performance.

(6) Insures that the completed data package and summary of the test results are forwarded to the TEP detachment within the required timeframe.

(7) Provides an entrance briefing to the O&M commander or his representative and other designated personnel, covering the scope of the evaluation (immediate and long range goals); provides O&M commander with a milestone chart covering all phases of the evaluation.

(8) Provides an exit briefing to the O&M commander or his representative and other designated personnel. This briefing will include deficiencies noted, corrective actions taken to resolve the deficiencies and identification of those problems requiring ongoing corrective action. Additionally, the team chief will provide the O&M representative(s) a written list of unresolved problems along with recommended corrective actions.

(9) Directs diagnostic testing as necessary to isolate a problem or potential problem and provides recommendations to correct any deficiencies noted.

(10) Advises the detachment headquarters directly of any problems encountered which would influence the test results or reflect a change in the test schedule.

(11) Exercises responsibility for the health, welfare, morale and conduct of assigned team members when in test status.

(12) Requests and coordinates system downtime when required.

(13) Provides operational assistance and insures complete performance evaluation.

(14) Coordinates and provides schedule for automated TCC evaluations with HQDA, MISO, prior to visit (para 8-6a(4), AR 105-22).

(15) Arranges for command representative with operational experience to accompany team when requested.

(16) Provides afteraction reports in accordance with guidance furnished by HQDA, DAMO (para 8-6d(4), AR 105-22).

(17) Performs other duties as assigned.

b. Team NCOIC.

(1) Performs the team chief's duties during his or her absence.

(2) Insures that the team chief's directives are carried out.

(3) Provides guidance and training to team members and onsite personnel.

(4) Provides technical, personal, administrative and operational observations to the team chief.

(5) Insures that the test equipment is calibrated, operational and securely packed prior to shipment.

(6) Initiates corrective adjustments, maintenance and alignment of equipment being evaluated in coordination with onsite and area maintenance support facility (AMSF) personnel.

(7) Completes the required data elements for all data collected and insures that the data is valid, legible and representative of system performance.

(8) Performs other duties as assigned.

c. DSTE Repairman.

(1) Insures that the test equipment is set up and functioning correctly prior to testing.

(2) Initiates corrective adjustments, maintenance and alignment of equipment being evaluated in coordination with onsite and AMSF personnel.

(3) Completes the required data elements for all data collected and insures that the data is valid, legible and representative of system performance.

(4) Informs the team NCOIC of any discrepancies in the digital subscriber terminal equipment (DSTE).

(5) Performs other duties as assigned.

1-10. TESTS TO BE PERFORMED.

a. Tests will be performed during each evaluation so that a comprehensive and accurate analysis of the TCC equipment can be summarized in the final evaluation report. These tests may have to be further defined as preliminary or final depending upon the corrective actions. The test results will be considered preliminary if it is apparent that remedial action is required to bring the system within requisite performance standards. Once the remedial action has been accomplished, the test will be repeated to obtain the final data. If remedial action cannot be accomplished while the team is onsite, the preliminary data will be annotated as the final test results, and required follow-on corrective actions will be summarized in the final test report.

b. The following test sequence is proposed for the various terminal configurations.

(1) Mode I terminals.

(a) DSTE (local tests).

(b) Ancillary equipment tests.

(c) COMSEC equipment tests.

(d) Placement of the entire system in back-to-back configuration (system test).

(2) Mode V (includes modes II, III and IV) terminals.

(a) Teletypewriter (tt) equipment tests.

(b) Teletypewriter control unit tests.

(c) COMSEC equipment tests.

(3) ATCAP level II (mode I) terminals.

(a) DCT 9000 (local tests).

(b) Ancillary equipment tests.

(c) COMSEC equipment tests.

1-11. DATA SUBMISSION.

a. All measured/recorded data must be reviewed in detail, and a precise comparative analysis will be conducted to determine whether the test results are within the specified performance level. Much of this analysis must be accomplished by the evaluation team while it is onsite to insure that the data is accurate and complete and to determine what, if any, additional diagnostic tests should be conducted.

b. The final data must identify the specific problem when the test results depart from the expected values.

c. Test data forms have been included on which to record the test results. The following pertinent points must be observed when completing the test data forms.

(1) All test results will be verified and checked for accuracy and completeness by the test team chief prior to certification.

(2) A cover sheet (fig. 1-1; USACC Form 351-R (Test)) for each test sequence will be used to summarize the test results, along with the recommended corrective actions.

(3) All measured data will be in absolute values (dbm, not db).

1-12. TEST REPORT FORMAT. The final test report may be in two or more volumes depending upon the scope of the evaluation. Volume I will be organized as shown below; paragraph numbers in parentheses are keyed to the sample test report (app B). Volume II and succeeding volumes will include copies of all the test data collected during the evaluation.

a. (1.0) GENERAL. This paragraph will contain a short description of the report content, the name and geographical location of the station,

the unit designation and mailing address of the operating agency, the period of evaluation, test team composition and key personnel contacted.

b. (2.0) SUMMARY OF TEST RESULTS. A summary of the test results will include information on the tests conducted and the results of each test. Deviations from expected results should be discussed. Separate subparagraph headings will be used for each of the performance characteristics discussed.

c. (3.0) OMITTED AND/OR INCOMPLETE TESTS. All omitted, incomplete or invalid tests will be listed in tabular form (table 1-1; USACC Form 383-R (Test)). A concise explanation will be provided for each test listed.

d. (4.0) CONCLUSIONS (chapter 2). Conclusions will be based on the overall performance of the system. All anomalies that were encountered and corrected onsite will be listed. Corrective actions accomplished to bring the TCC facility up to required performance standards will also be included.

e. (5.0) TECHNICAL RECOMMENDATIONS (chapters 2 and 3). A separate recommendation based on sound engineering and/or maintenance practices will be provided in this paragraph for any problem areas that were not resolved during the evaluation.

f. (6.0) DATA TABULATION. Tabulation of data for the TCC technical evaluation data base (table 1-2; USACC Form 384-R (Test)) will be included in the report. All elements will be listed, and NA will be entered for elements not applicable. A separate subsection will be used for each subsystem or equipment under test.

1-13. COMMENTS. Users of this pamphlet are invited to submit recommendations to improve the pamphlet. Comments should be keyed to the specific page, paragraph and line of the text. Rationale should be provided for each comment to insure understanding and complete evaluation. Comments should be submitted on DA Form 2028 (Recommended Changes to Publications and Blank Forms) and addressed to Commander, US Army Communications Command, ATTN: CC-OPS-0, Fort Huachuca, Arizona 85613.

TEST COVER PAGE		<input type="checkbox"/> PRELIMINARY <input type="checkbox"/> FINAL	DATE
DATA SHEET			
FACILITY TESTED		DISTANT FACILITY	
THROUGH FACILITIES:			
TEST PERFORMED:		<input type="checkbox"/> WITH MINOR MODIFICATIONS <input type="checkbox"/> WITH MAJOR MODIFICATIONS (Explain below)	
<input type="checkbox"/> AS SPECIFIED IN TEST PROCEDURES			
COMMENTS			
STANDARDS/SPECIFICATIONS			
TEAM LEADER CERTIFICATION			
NAME (Typed)	GRADE	SIGNATURE	

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Figure 1-1. Test cover page.

Table 1-1. Omitted and/or Incomplete Tests.
(CCR 702-1-3)

STATION	TEST DESCRIPTION	REMARKS

Table 1-2. Tabulated Data for TCC Technical Evaluation Data Base
(CCR 702-1-3)

Station location.

Station name.

Station OIC

Station NCOIC

Station unit identification code (UIC)/
site code (SC).

Station AUTOVON number.

Parent organization

Parent organization AUTOVON number.

O&M command

O&M command AUTOVON number.

Major headquarters served by TCC.

Major headquarters AUTOVON number

Station electrical message address.

Type facility

Routing indicator

Command communications service
designator (CCSD)

Restoration priority.

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Through stations.

Connected AUTODIN terminal.

Total customers served.

Number of customers internal routing made .

Number of customers internal routing
not made.

Number of customers requiring
reproduction.

Average number of copies reproduced per
message

Number of remote stations

Number of readdressed messages.

Personnel manning

Terminal equipment.

Baud rate

Spare terminal equipment.

Baud rate

Number and types of COMSEC equipment. . . .

CHAPTER 2
CHECKLISTS FOR PERFORMANCE EVALUATION
OF
TELECOMMUNICATIONS CENTERS

2-1. GENERAL. This chapter is designed to determine the operational performance of the TCC's. Figure 2-1, USACC Form 385-R covers general information and day-to-day functions and procedures. The remainder of the chapter is concerned with equipment verification.

2-2. PROCEDURES.

a. The evaluation checklists contained in this chapter have been developed after considerable research of all applicable documents; however, they should be considered as the initial step in the TCC evaluation process. As the procedures are used by the evaluation team, certain changes may be required based on equipment configuration or operational layout of the TCC.

b. Although the procedures are considered to be a guide for the evaluation team and O&M command personnel, they may not be all-encompassing. In such cases, the team chief will augment these procedures as may be necessary to attain a full and comprehensive evaluation of services being provided.

PERFORMANCE EVALUATION
OF
TELECOMMUNICATIONS CENTERS
(CCR 702-1-3)

Comments will be keyed to the specific paragraph and entered in the space provided in paragraph 18. Additional pages may be used, if required.

1. GENERAL INFORMATION.

a. Installation Name. _____

b. TCC Identification.

(1) TCC Name _____

(2) US or Overseas Mailing Address _____

(3) Electrical Message Address _____

(4) OIC Name & Rank _____

AUTOVON _____

(5) NCOIC Name & Rank _____

AUTOVON _____

(6) Parent Org (Bn, Co, etc) _____

AUTOVON _____

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c. AUTODIN Switching Center(s) on which Homed _____

d. TCC Routing Indicator(s)

e. Is the TCC fully integrated and consolidated? If not, provide reasons for noncompliance, status of consolidation/integration actions and date for completion (para 5ℓ, AR 105-1; para 1-3 and 1-4, TM 11-490-2; para 5b(2), AR 105-17).

f. What type of services are available to users (para 2-4, TM 11-490-2)?

g. What type of terminal configuration (DSTE AB, DCT 9000, mode V, etc.) is employed?

(1) Does it meet current mission requirements? If not, explain.

(2) Does it provide for future expansion, if required? If not, explain.

[illegible]

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Figure 2-1. Performance evaluation of TCC's. (continued)

h. Is the layout of equipment conducive to efficient operation and message processing? If not explain.

i. Are procedures and titles standardized for this type of TCC facility (chap 6, TM 11-490-2)? If not, explain.

j. Do responsibilities for each TCC position conform with those listed in paragraphs 6-2 through 6-9, TM 11-490-2?

k. When was last annual general inspection?
 _____ Were any problems encountered? If
 so, explain.

1. Are any local operational or management reports being prepared which duplicate any existing reports? If so explain.

m. Is there presently a functioning telecommunications control board established in the area (AR 105-10)?

(1) What command is responsible? _____

(2) Who is the president of the board? _____

(3) Does the TCC send representatives to the board?

n. Is TM 11-490-2 being used as the operations SOP for the TCC (para 1-1 and 1-2)?

o. Are TM's 11-490-1 and -2 maintained as looseleaf publications (para 4b, AR 105-17)?

[illegible]

	YES	NO	NA
(1) Are TM's available for practical use?			
(2) Are changes posted to TM's?			
(3) Are TCC personnel knowledgeable in submission procedures for recommended changes to TM's 11-490-1 and -2?			
p. Have TM's been locally augmented (para 4c, AR 105-17 and para 1-2, TM 11-490-2)?			
q. Are local augmentation procedures limited to unique conditions policy for limited exceptions and deviations IAW AR 105-17 and TM 11-490-2? If not, explain.			
r. Do local augmentation procedures cite the corresponding paragraph and chapter of the appropriate publications?			
s. Have copies of the local augmentation procedures been forwarded to HQ USACC (AR 105-17 and para 1-2, TM 11-490-2)?			
t. Are administration, personnel, logistics, maintenance, housekeeping and similar matters included in SOP's separate from TM 11-490-2?			
u. Is the TCC on pinpoint distribution?			
v. Is there a forms or publications distribution problem? If so, explain.			
w. Is station power and air conditioning adequate to handle the equipment load? If not, explain.			

[illegible]

x. Is there adequate backup power?

2. DATA CARD CARE.

a. Are storage and handling procedures for data cards IAW TM 11-490-2 as follows:

- (1) Environment (para 5-1a)?
- (2) Conditioning procedures (para 5-1b)?
- (3) Storage conditions (para 5-1c)?
- (4) Use (para 5-1d)?

b. Are correct types of data cards procured?

3. TAPE LIBRARY/LOGS.

a. Are storage and handling procedures for magnetic tapes IAW TM 11-490-2 as follows:

- (1) Adequate space and shelving for tapes?
- (2) Records/logs for each reel (para 5-2b(1))?
- (3) Up-to-date records/logs?

b. Do the records show --

- (1) Installation identification (para 5-2b(1)(a))?
- (2) Reel or pack number (para 5-2b(1)(b))?

(3) Content (journal/history year, etc.) (para 5-2b(2)(c))?

- (4) Recording density/capacity (para 5-2b(1)(d))?
- (5) Security classification (para 5-2b(1)(e))?
- (6) Usage (including cleaning) (para 5-2b(1)(f))?
- (7) Disposition (para 5-2b(1)(g))?
- (8) Degaussing (para 5-2b(1)(h))?

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Figure 2-1. Performance evaluation of TCC's. (continued)

	YES	NO	NA
(9) Purge dates or retention periods (para 5-2b(1)(i))?			
c. Does inventory accountability show --			
(1) On-hand items in library (para 5-2b(3)(a))?			
(2) Responsiveness/adequacy of tape supply sources?			
(3) When replacements are due in (para 5-2b(3)(b))?			
(4) Whether old classified tapes are (para 5-2c) --			
(a) Stored properly?			
(b) Marked properly?			
(c) Awaiting disposition; i.e., destruction, transfer, etc. (para 5-2b(3)(f))?			
d. Are magnetic tape reel acquisition, inspection, cleaning, recertification, degaussing equipment procedures or schedules and shipping procedures IAW paragraph 5-3, TM 11-490-2? If not, explain.			
e. Is new/excess magnetic tape received from Defense ADPE Reutilization Office channels inspected for edge damage, scratches, distortion and tape errors prior to use?			
f. Are unsatisfactory magnetic tapes being received from Defense ADPE Reutilization Office channels? If so, explain.			
g. Does the TCC have tape cleaning/recertification equipment to detect and correct magnetic tape errors cited in paragraph 5-3, TM 11-490-2 and AR 18-7?			
h. Are approved degaussers available (para 5-4, TM 11-490-2)?			

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Figure 2-1. Performance evaluation of TCC's. (continued)

	YES	NO	NA
R			

i. If not, are they requisitioned?

j. Are only new or degaussed and declassified magnetic tapes used within the TCC (para 5-4, TM 11-490-2)? Briefly explain how this was determined.

k. Are reels promptly returned by data processing installation originators subsequent to completion of service message actions?

1. Is there adequate fire prevention (para 5-2b, TM 11-490-2 and AR 420-90)? If not, explain.

4. M&R FUNCTIONS AND OPERATING PROCEDURES.

a. Are M&R section responsibilities clearly defined (para 6-9a, TM 11-490-2)?

b. Do M&R section personnel perform the required duties as listed in paragraph 6-9a, TM 11-490-2?

c. Are message processing discrepancies noted by M&R section personnel published for supervisor and operator review?

d. Is M&R section adequately staffed and supervised according to mission requirements and present workload? If not, explain.

e. Is 100-percent, after-transmission check made on all originated messages to determine procedural and operator discrepancies? If not, what percentage is being checked? %

5. RECORDS.

a. Are station logs reviewed, stored, retained and destroyed as follows (AR 340-18-11):

- (1) Logs, reports and similar files -- 1 year?
- (2) Message files -- 1 year or less?
- (3) Other files -- 30 days?

b. Are there any deviations in TCC record and file maintenance? If so state authority. _____

c. Are all TCC logs/records and standard DD/DA or other forms prescribed by TM 11-490-2 for TCC operations on hand?

d. Are log/record/form entries made IAW TM instructions? If not, state authority which directs deviation from established procedures? _____

6. MESSAGE PROCESSING AND HANDLING.

a. Are message processing steps fully in conformance with paragraph 6-10, TM 11-490-2? If not, explain.

b. Are messages received for transmission on a reasonably even flow throughout the business day (AR 105-31)? If not, explain.

YES	NO	NA

c. What percentage of traffic originates between 1530 and 1700 hours (para 1-4d, AR 105-31)? _____%

d. Have any subscribers complained concerning TCC delivery of messages to supported headquarters, commands, activities or operations centers? How many messages were delayed? _____ Explain cause of delay.

e. Are reproduction facilities available (para 6-10a(2)(c), TM 11-490-2)? State type and capacity.

f. Does a local augmentation procedure cover interruptions to leased facilities?

g. Are the procedures outlined in TM 11-490-2 being used for the following types of messages:

(1) TOP SECRET (para 7-3)?

(2) SECRET (para 7-6)?

(3) Non-SPECAT codeword/nickname (para 7-7)?

(4) PERSONAL FOR (para 7-8)?

(5) LIMITED DISTRIBUTION (LIMDIS) (para 7-9)?

(6) General (para 7-10)?

(7) Staff service (para 7-11)?

(8) OIC (para 7-12)?

(9) International and Allied Treaty Organization (para 7-13)?

(10) Book (para 7-14)?

h. Are service messages processed IAW paragraph 7-15, TM 11-490-2?

(1) Is the service subsection area convenient to operations?

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Figure 2-1. Performance evaluation of TCC's. (continued)

	YES	NO	NA
(2) How many services are originated per day? _____			
(3) What is the reason for the majority of the services?			
(4) Do service backlogs occur? If so, explain.			
(5) Are service messages which require a reply placed in a suspense file (para 7-15b(2))?			
(6) Are followup actions initiated on service messages, when required (para 7-15b(2))?			
i. Are misrouted messages processed IAW paragraph 7-17, TM 11-490-2?			
j. Are missent messages processed IAW paragraph 7-18, TM 11-490-2?			
k. Are messages readdressed by other than the action/PI office (para 7-19b, TM 11-490-2)?			
l. Does a review of 10 to 20 randomly selected, readdressed messages (including book and codress, when available) indicate discrepancies in processing procedures (para 7-19 c thru f, TM 11-490-2)? If so, explain.			
m. Are requests for retransmission received from originators on DA Form 2655 (para 7-20a, TM 11-490-2)?			
n. Are operator and supervisory personnel correctly using suspected duplicate (SUSDUPE) narrative, punched card and magnetic tape message processing procedures (para 7-21 a and b, TM 11-490-2)?			

x. Are modification/recapitulation procedures performed IAW paragraph 7-26c(2), TM 11-490-2 and ACP 100, US Suppl-1()?

9. SUPPLEMENTARY OPERATING PROCEDURES.

a. Are uncovered trash receptacles located near operating/clerical positions (para 8-2a, TM 11-490-2)?

b. Is the station properly policed to avoid lost message hazards (para 8-2b, TM 11-490-2)?

c. Are covered waste containers of moderate size placed where needed (para 8-2c, TM 11-490-2)?

d. Are requests for change of action/PI, added distribution and additional copies prepared on DA Form 2655 for all narrative messages (para 8-9, TM 11-490-2)?

e. Is the TCC complying with MINIMIZE message processing procedures (para 8-11, TM 11-490-2)?

f. Are policies and procedures for providing temporary message service to VIP's MI(CID) agents and other authorized users complied with (para 8-13, TM 11-490-2)?

g. Is such service provided?

h. Is interpretation of data pattern messages limited to interpretation of header, CIC, RI and text header only (para 8-19, TM 11-490-2)?

i. Are DA Form 4019-R entries used for recording information for tracer action requests (para 8-21, TM 11-490-2)?

j. Does a review of 5 to 10 requests for tracer action indicate any inordinate delay in the correct handling of messages by TCC personnel (para 8-21, TM 11-490-2)? If so, explain.

k. Have high precedence alternate delivery procedures been established for those TCC's operating on a part-time basis (para 8-23b(1)(a), TM 11-490-2)?

[illegible]

1. If alternate delivery has not been established, has the ASC been provided with the name and telephone number of a TCC representative for 24-hour contact (para 8-23b(1)(c), TM 11-490-2)?

m. Are closing and opening notices provided the ASC (para 8-23d, TM 11-490-2)?

n. Is protection provided the TCC during nonoperating hours against compromise, damage, theft or fire (para 8-23b(1)(b), TM 11-490-2)?

10. MAINTENANCE.

a. When was last annual maintenance inspection performed? _____ Were any problems encountered? If so, explain.

b. How many HAZCON's have been reported due to lack of spare parts and equipment outages during the last 60 days?

c. Does a HAZCON currently exist at the station?
If so, explain.

d. Are authorized maintenance personnel assigned?
If not, explain.

e. Are there any particular maintenance problems being encountered? If so, explain.

	YES	NO	NA
a.			
b.			
c.			
d.			
e.			
f.			
g.			
h.			
i.			
j.			
k.			
l.			
m.			
n.			
o.			
p.			
q.			
r.			
s.			
t.			
u.			
v.			
w.			
x.			
y.			
z.			

(1) On hand IAW applicable PLL?

2-15

	YES	NO	NA
(2) Authorized IAW applicable PLL?			
n. What action has been taken to obtain the necessary spare parts?			
o. Are excess/unauthorized spare parts on hand? If so, explain.			
p. Are systems/equipment down for extended periods of time for --			
(1) Repair parts?			
(2) Maintenance at AMSF?			
(3) Shortage and/or repair of TMDE?			
q. Is contractor-owned equipment utilized onsite?			
(1) If so, who has maintenance responsibility?			
(2) When troubles are reported to the company representative, what is the average response time from time-of-contact to time-of-arrival?			
(3) Is this response time IAW established contract requirements?			
(4) When contract representative arrives onsite, is the equipment restoral time IAW contract requirements?			
(5) If not, what action has local command taken to insure adherence to contract requirements?			
r. Are DD Forms 1435 and DA Forms 750 available and verified for personnel performing maintenance on COMSEC equipment?			

s. Is routine maintenance being performed on a scheduled basis IAW established procedures? If not, explain.

t. Is software support being provided IAW CCR 105-7? State name and location of organization that provides this support. _____ If not, explain.

11. SECURITY

a. When was the last COMSEC inspection performed by INSCOM? _____ TEMPEST inspection? _____ TEMPEST test? _____

b. If discrepancies were noted, were they resolved within TCC assets and/or capabilities?

c. Has a TOP SECRET control officer (TSCO) and an alternate been appointed in writing (para 2-33, AR 380-5)? If not, explain.

d. Has a security manager been appointed in writing (para 1-4e, AR 380-5 and USACC Suppl 1 to AR 380-5)?

e. Is all waste generated in the TCC treated as classified waste (para 8-5, TM 11-490-2 and AR 380-5 w/USACC Suppl 1)? If not, explain.

YES	NO	NA

k. Is the TCC experiencing any problems of such a nature that precludes destruction IAW subparagraphs e through j above? If so, explain.

l. Has the TCC prepared an emergency destruction and evacuation plan (AR 380-40 and para 8-4c and 9-4e, TM 11-490-2)? If not, explain.

m. Is the plan posted and included in the required periodic reading file?

n. Have alert measures been established IAW paragraph 8-6, TM 11-490-2?

o. Are alert measures being exercised IAW paragraph 8-6, TM 11-490-2?

p. Does the TCC have contingency circuits/equipment? If so, when was it last tested? _____

q. Is the TCC (overseas only) employing incendiary devices? If so, explain.

r. Does the TCC incendiary storage area (AR 190-11; AR 190-13 and para 8-4c, TM 11-490-2) --

(1) Have or require a waiver for facilities which do not meet the quantity-distance criteria IAW AR 385-64? Explain.

YES	NO	NA

w. Are classified documents being reproduced at designated control locations (para 7-209, DOD 5200.1-R; para 2-30, AR 380-5 and para 2-30, USACC Suppl 1 to AR 380-5)?

x. Has the commander designated officials by position title who are authorized to approve the reproduction of TOP SECRET and SECRET information (para 2-30, USACC Suppl 1 to AR 380-5)?

y. Are reproductions of accountable documents brought under immediate written control (para 7-209, DOD 5200.1-R; para 2-30, AR 380-5 and para 2-30, USACC Suppl 1 to AR 380-5?

z. Are warning notices posted on unauthorized machines prohibiting the reproduction of classified material (para 7-209, DOD 5200.1-R)?

aa. Are there any problems in obtaining security clearances for TCC personnel? Average time _____
If so, explain.

ab. Is TCC access controlled (para 9-4a, TM 11-490-2)?

ac. Have procedures for physical compromise been established IAW paragraph 9-4b, TM 11-490-2?

ad. Have physical security safeguards been established IAW paragraph 9-4c, TM 11-490-2?

ae. Have provisions been made to isolate transfer circuit terminations from US circuit terminations (para 9-4d, TM 11-490-2)?

af. Are off-line procedures IAW paragraph 9-8e, TM 11-490-2? If not, explain.

[illegible]

ag. Do classified magnetic tape reels have proper classification markings (para 9-10, TM 11-490-2)?

ah. Are security precautions observed by TCC personnel for the safeguarding, destruction, access and shipping of magnetic core memories and USACC letters concerning the declassification programs (routines) associated with each device (para 5-5 and 9-11, TM 11-490-2)? How are declassification programs safeguarded?

12. SAFETY.

a. Has a safety officer been appointed?

b. When was the last facility survey performed by the host command or higher headquarters? _____

(1) Were safety hazards noted? If so, explain.

(2) What actions were taken to eliminate the hazards?

(3) Do any of the above-mentioned hazards still exist? If so, explain.

(4) Are they resolvable within TCC assets and/or capabilities? If not, explain.

c. Has a fire plan been --

(1) Developed?

(2) Posted?

(3) Included in the required periodic reading file?

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Figure 2-1. Performance evaluation of TCC's. (continued)

d. Are fire evacuation exercises performed on a scheduled basis IAW the fire plan? If not, explain.

Date of last exercise performed. _____

e. Is a smoke detection/alarm system installed?

f. Are proper types and quantities of fire extinguishers installed in all rooms that contain communications equipment or flammable materials (para 3h, CCR 385-1)? If not, explain.

g. Are the fire extinguishers inspected monthly?

h. Are NO SMOKING signs posted in all areas containing flammable materials (para 3g, CCR 385-1)?

i. Are approved cleaning solvents used? If not, explain.

j. Are toxic cleaning solvents used only in well-ventilated areas? If not, explain.

k. Are solvents stored in approved safety containers?

1. Are oily rags stored in tightly closed metal containers and disposed of daily?

m. Has the safety officer authorized the installation of a safety board?

n. Is the safety board painted white with a 2-inch green border (para 6a, CCR 385-1)?

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Figure 2-1. Performance evaluation of TCC's. (continued)

	YES	NO	NA
o. Does the safety board contain as a minimum those items listed in paragraph 6c, CCR 385-1? If not, explain.			
p. Is the safety board suitably equipped for local conditions? if not, explain.			
q. Is CCR 385-1 posted to the safety board?			
r. Has CCR 385-1 been included in the required periodic reading file?			
s. Is there an emergency backup lighting system?			
t. Is the emergency backup lighting system operated automatically when power failures occur? If not, explain.			
u. Has the TCC incorporated appropriate safety measures to protect personnel from shock hazards while operating communications equipment (para 4, CCR 385-1)? If not, explain.			
v. Are hand tools in serviceable condition? If not, explain.			
w. Do any hand tools have taped handles (para 4a, CCR 385-1)? If so, explain.			

	YES	NO	NA
ad. Is the path to ground continuous and permanent?			
ae. Do plugs and convenience outlets for use with portable tools, equipment and TMDE have provisions for automatic grounding of the frame or case when the plug is mated with the receptacle (para 4c, CCR 385-1)?			
af. Are heavy current-consuming devices such as floor polishers and buffers equipped with three-conductor power cords that connect to an appropriate ground?			
ag. Are any of the above-mentioned safety problems resolvable within TCC assets and/or capabilities? If not, explain.			
13. MESSAGE QUALITY CONTROL PROGRAM (MQCP).			
a. Is the TCC receiving assistance visits from the connected ASC as part of the MQCP (chap 10, TM 11-490-2; ACP 121, US Suppl-1() and DCAC 310-D70-30)?			
b. How many visits have been made during the past year by the connected ASC MQCP team? _____			
c. Is the ASC MQCP team disseminating information to connected ASC's on team visits, schedules, results, competitive incentive award/recognition programs and related MQCP information?			
d. Is an aggressive internal TCC MQCP being conducted IAW paragraphs 10-2d and 10-4a, TM 11-490-2?			
e. Within the past year, has the TCC operated above the MQCP performance threshold (para 10-3b, TM 11-490-2)? If so, explain.			
f. If connected to a non-Army ASC, is an MQCP service being provided the TCC?			

14. FACSIMILE COMMUNICATIONS.

a. Has the C-E officer established procedures to maintain operational control of equipment usage within his area of responsibility (AR 105-1)? Attach copy of any local directives/instructions.

b. Is the telecommunications control board reviewing facsimile communications?

c. Is narrative information of any type being transmitted/received via facsimile equipment? If so, explain.

d. Is other than routine Joint Uniform Telephone Communications System precedence being used for TCC facsimile transmissions via AUTOVON (para 758i, ACP 121, US Suppl-1())? If so, state authority.

e. Are facsimile automatic disconnect features in use as required (para 758i, ACP 121, US Suppl-1())?

f. Is a listing of documents and material which are prohibited by law from being transmitted via facsimile posted and available to TCC operators and supervisors (TBAG 4)?

g. Are DA Forms 3918-R properly prepared and released by originators?

h. What percentage of facsimile transmissions/receptions exceed three pages? %

i. Are facsimile communications which exceed three pages approved by commanders or designated representatives (AR 105-31)?

j. What percentage of facsimile transmissions are accomplished during business hours? _____ %
Nonbusiness hours? _____ %

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k. Are facsimile log and register entries IAW paragraph 11-3, TM 11-490-2)?

l. Are any problems experienced in operating a centralized facsimile service for customers? If so, explain.

YES	NO	NA

15. PUBLICATIONS CHECKLIST. Except for those asterisked (*), the following publications with appropriate changes are mandatory for retention within the TCC (para 1-3a, TM 11-490-1). Other publications may be retained when specific TCC requirements exist. Titles of below-listed publications may be found in paragraph 1-6 of this document.

PUBLICATION NO.	ON HAND	
	YES	NO
DOD 5200.1-R		
DCAC 310-D70-30		
DCAC 350-135-1*		
JANAP 128		
(C) ACP 100() (Allied restricted)		
(C) ACP 100 US Suppl-1()		
(C) ACP 117() (Allied restricted)		
ACP 117 US Suppl-1()		
ACP 117 CAN - US Suppl-1()		
ACP 117 US Suppl-2()		
ACP 117 US Suppl-4()		
(C) ACP 121() (Allied restricted)		
(C) ACP 121 US Suppl-1()		
(C) ACP 122()		
(C) ACP 127() (Allied restricted)		
ACP 127 US Suppl-1()		
ACP 131()		
ACP 131 US Suppl-1()		
ACP 167()		

NOTE: The team chief will indicate issue, change or date beside each publication or checklist.

CCP 702-7

PUBLICATION NO.	ON HAND	
	YES	NO
AR 18-7*		
AR 105-1*		
AR 105-10		
AR 105-17		
AR 105-22		
AR 105-31		
AR 105-32		
AR 105-34		
AR 190-11*		
AR 190-13*		
AR 310-20		
AR 310-50		
AR 310-75		
AR 340-16		
AR 340-18-1		
AR 340-18-5		
AR 340-18-11		
AR 350-1*		
USACC Suppl 1 to AR 350-1*		
AR 380-5		
USACC Suppl 1 to AR 380-5*		
AR 380-26		
AR 380-40*		

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Figure 2-1. Performance evaluation of TCC's. (continued)

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Figure 2-1. Performance evaluation of TCC's. (continued)

16. PERSONNEL DATA WORKSHEET.

TDA _____
DATE _____

	OFF	WO	ENLISTED												CIVILIAN	TOTAL	
MOS																	
AUTH																	
ASGD																	
<p>NOTE: List projected 90-day losses by grade and MOS; personnel shortages by grade and MOS; date and status of personnel requisition(s) submitted, if any.</p> <p>REMARKS:</p>																	

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Figure 2-1. Performance evaluation of TCC's. (continued)

17. SHIFT SCHEDULING OF PERSONNEL.

	OFF/WO	NCO		ENLISTED		CIVILIAN		TOTAL PERS
		OP	MAINT	OP	MAINT	OP	MAINT	
A SHIFT								
B SHIFT								
C SHIFT								
D SHIFT								
BUFFER SHIFT								
OVERHEAD PERSONNEL								
TOTAL								
REMARKS:								

Figure 2-1. Performance evaluation of TCC's. (continued)

18. COMMENTS. (Entries will be keyed to the specific paragraphs to which they pertain.)

DATE OF EVALUATION

TEST ENGINEER SIGNATURE

2-3. DIGITAL SUBSCRIBER TERMINAL EQUIPMENT (DSTE).

a. General. The purpose of this test is to assess the operational status of the DSTE by placing it in different modes (local test, back-to-back and on-line).

b. Specifications. The DSTE must operate as specified in the following:

- (1) TM 11-7440-214-15.
- (2) TM 11-7440-215-15.
- (3) TM 11-7440-217-15.
- (4) TM 11-7440-218-15.
- (5) TM 11-7440-219-15.
- (6) TM 11-7440-221-15.
- (7) TM 11-7440-222-15.
- (8) TM 11-7440-223-15.
- (9) TM 11-7440-228-15.
- (10) TM 11-7440-238-15.
- (11) TM 11-7440-239-15.

c. Required Tests. As listed in figure 2-2; USACC Form 386-R(Test).

d. Material Required. Test messages prepared on cards and paper tape.

e. Test Procedures. As prescribed in TM's cited in subparagraph b above and the DSTE Test and Acceptance document dated April 1969.

NOTE: Because the test procedures for proper evaluation of the DSTE are quite voluminous, only major test headings are indicated in figure 2-2; USACC Form 386-R (Test). For more definitive information regarding test procedures, refer to referenced documents cited in subparagraph b above.

DIGITAL SUBSCRIBER TERMINAL EQUIPMENT TESTS (CCR 702-1-3) DATA SHEET	PERIOD OF TEST: START _____ Z STOP _____ Z	DATE (DAY/MONTH/YEAR) (_____) TEST ENGR SIGNATURE _____
LOCAL TESTS	PASSED FAILED	REMARKS
High and Low Speed Paper Tape Punches		
Card Reader		
Page Printer		
Low Speed Card Punch		
Paper Tape Reader		
Operation of Universal Keyboard with the HSPTF/LSPTP		
Operation of Universal Keyboard with the Low Speed Card Punch		
Lamp Audio Test CCU		
Lamp Test Card Reader		
Lamp Test Paper Tape Reader		
Lamp Test Low Speed Card Punch		
Lamp Test High Speed Card Punch		

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Figure 2-2. Performance evaluation of DSTE.

LOCAL TESTS (cont)	PASSED	FAILED	REMARKS
Lamp Test Low Speed Paper Tape Punch			
Lamp Test High Speed Paper Tape Punch			
Lamp Test Page Printer			
COMMENTS:			

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Figure 2-2. Performance evaluation of DSTE. (continued)

DIGITAL SUBSCRIBER TERMINAL EQUIPMENT TESTS		PERIOD OF TEST: START <u> </u> Z STOP <u> </u> Z		DATE (DAY/MONTH/YEAR) (<u> </u>) TEST ENGR SIGNATURE <u> </u>	
DATA SHEET		PASSED	FAILED	REMARKS	
MESSAGE HANDLING TESTS					
Paper Tape FIPS-14 Code JANAP 128					
Paper Tape ITA #2 Code JANAP 128					
Card Hollerith Code JANAP 128					
Paper Tape ITA #2 Code ACP 127					
COMMENTS:					

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Figure 2-2. Performance evaluation of DSTE. (continued)

2-4. DCT 9000 AUTODIN TERMINAL.

a. General. The purpose of this test is to evaluate --

(1) The operational performance of the Univac DCT 9000, Mode I.

(2) The terminal's capability to handle data on a subscriber-to-subscriber basis and interconnection to other government and commercial networks.

(3) The terminal's capability to provide traffic interchange in accordance with precedence to include provision of secure communications.

b. Specifications. The DCT 9000 must operate as prescribed in the following:

(1) Publication No. CCC-TED-75-TP-194 with supplement.

(2) Publication No. CCC-TED-74-TP-137.

c. Required Tests. As stated in documents cited in subparagraph b above and figure 2-3; USACC Forms 387-R through 387-18-R (Test).

d. Test Equipment Required. A stopwatch (a watch with a secondhand may be used).

e. Test Procedures. As prescribed in the referenced documents cited in subparagraph b above and figure 2-3; USACC Forms 387-R through 387-18-R (Test).

DCT 9000 AUTODIN TERMINAL TESTS (CCR 702-1-3)		PERIOD OF TEST: START _____ Z STOP _____ Z		DATE (DAY/MONTH/YEAR) (_____)	
DATA SHEET		PASSED		REMARKS	
NO.	TEST				
1	TERMINAL CONTROL AND CONTROL INDICATORS TEST				
	a. Prepare for Program Loading Procedures				
	b. Parameter Card Preparation				
	c. Loading the Date Card				
	d. Loading a Distribu- tion Table				
	e. Loading RI/CIC Table				
	f. Statistics Control Functions				
	g. Reloading and/or Changing Statistics				
	h. Printing Magnetic Tape Statistics				
	i. Printing and Clearing Magnetic Tape Statistics				

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Figure 2-3. Performance evaluation of DCT 9000 AUTODIN terminal.

NO.	TEST	PASSED	FAILED	REMARKS
1	TERMINAL CONTROL AND CONTROL INDICATORS TEST (continued)			
	j. Program Loading Using a Magnetic Tape Load Program			
	k. Environmental Verification Procedures			
	l. Message II-1 Procedures			
	m. Stop on ETX Procedures			
	n. Message I-1 Manual Cancel Procedures			
	o. WBT Indicator (Empty Input Hopper) Test Procedures			
	p. Full Stacker Test Procedures			
	q. Card Punch Off-Line Test Procedures			
	r. Chip Box Full Procedures			
	s. Prepunched Text Card Procedures			

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Figure 2-3. Performance evaluation of DCT 9000 AUTODIN terminal. (continued)

NO.	TEST	PASSED	FAILED	REMARKS
1	TERMINAL CONTROL AND CONTROL INDICATORS TEST (continued)			
	t. Prepunched Text Card Procedures			
	u. Invalid Code Detection Procedures			
	v. Invalid Character In-Header Procedures			
	w. Card Reader Off-Line Procedures			
	x. Hopper Empty Procedures			
	y. Card Reader Output Stacker Full Procedures			
	z. Card Reader Power Failure Procedures			
	aa. Card Jam Procedures			
COMMENTS:				

DCT 9000 AUTODIN TERMINAL TESTS (CCR 702-1-3)		PERIOD OF TEST: START _____ Z STOP _____ Z		DATE (DAY/MONTH/YEAR) (_____)	
DATA SHEET				TEST ENGR SIGNATURE _____	
NO.	TEST	PASSED	FAILED	REMARKS	
2	PERIPHERAL EQUIPMENT TEST				
	a. Uniservo VI C Subsystem Test Procedures				
	b. Restore to Normal Operation Procedures				
	c. Write Enable Ring Test Procedures				
	d. Uniservo VI C Controls Test Procedures				
	e. EOT Reflective Marker Test Procedures				
	f. Rewind, Forward, Load Point and Unload Test Procedures				
	g. Local Control Test Procedures				
	h. Unload Control Test Procedures				

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Figure 2-3. Performance evaluation of DCT 9000 AUTODIN terminal. (continued)

NO.	TEST	PASSED	FAILED	REMARKS
2	PERIPHERAL EQUIPMENT TEST (continued)			
	i. Load Point Reflective Marker Test Procedures			
	j. Single Message Search Test Procedures			
	k. Multiple Message Search Test Procedures			
	l. Operator Command Close and Down M/T Test Procedures			
	m. Attempt to Transmit with M/T's in Down and Close Conditions Test Procedures			
	n. Page Printer Test			
	o. Out-of-Paper Test Procedures			
	p. Form Control Tape Test Procedures			
	q. Printer Off-Line Test Procedures			

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Figure 2-3. Performance evaluation of DCT 9000 AUTODIN terminal. (continued)

NO.	TEST	PASSED	FAILED	REMARKS
2	PERIPHERAL EQUIPMENT TEST (continued)			
	r. Printer Console Functions Test Procedures			
	s. Paper Tape Subsystem Test Procedures			
	t. Paper Low Test Procedures			
	u. Paper Tape Reader Stop Test Procedures			
	v. Paper Tape Punch Stop Test Procedures			
	w. Incomplete Message Transmission Test Procedures			
	x. Incorrect Paper Tape Level Test Procedures			
COMMENTS:				

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Figure 2-3. Performance evaluation of DCT 9000 AUTODIN terminal. (continued)

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2	PERIPHERAL EQUIPMENT TEST (continued)
COMMENTS: (continued)	

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Figure 2-3. Performance evaluation of DCT 9000 AUTODIN terminal. (continued)

DCT 9000 AUTODIN TERMINAL TESTS (CCR 702-1-3)		PERIOD OF TEST: START <u> </u> Z STOP <u> </u> Z		DATE (DAY/MONTH/YEAR) (<u> </u>) TEST ENGR SIGNATURE <u> </u>	
DATA SHEET		PASSED	FAILED	REMARKS	
NO.	TEST				
3	TRANSFER TO ON-LINE TEST				
	a. Program Loading Procedures (optional)				
	b. Peripheral Verification Procedures				
	c. Sync Establishment Procedures (optional)				
	d. Message I-1 Procedures				
	e. Message II-1 Procedures				
	f. Alarm Check Test Procedures				
	g. Receive Crypto Equipment Test Procedures				
	h. Backup Crypto Test Procedures				
	i. Reestablish Normal Crypto Test Procedures				

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Figure 2-3. Performance evaluation of DCT 9000 AUTODIN terminal. (continued)

3	<p>TRANSFER TO ON-LINE TEST (continued)</p> <p>COMMENTS:</p>
---	--

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Figure 2-3. Performance evaluation of DCT 9000 AUTODIN terminal. (continued)

DCT 9000 AUTODIN TERMINAL TESTS (CCR 702-1-3)				PERIOD OF TEST: START _____ Z STOP _____ Z		DATE (DAY/MONTH/YEAR) () TEST ENGR SIGNATURE _____	
DATA SHEET		TEST	PASSED	FAILED	REMARKS		
NO.	4	CARD INPUT TEST					
		a. Message I-01					
		b. Message I-02					
		c. Message I-03					
		d. Message I-04					
		e. Message I-05					
		f. Message I-06					
		g. Message I-07					
		h. Message I-08					
		i. Message I-09					
		j. Message I-10					
		k. Message I-11					
		l. Message I-12					
		m. Message I-13					
		n. Message I-14					

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Figure 2-3. Performance evaluation of DCT 9000 AUTODIN terminal. (continued)

NO.	TEST	PASSED	FAILED	REMARKS
4	CARD INPUT TEST (continued)			
	o. Message I-15			
	p. Message I-16			
	q. Message I-17			
	r. Message I-18			
	s. Message I-19			
	t. Message I-20			
	u. Message I-21			
	v. Message I-22			
	w. Message I-23			
	x. Message I-24			
	y. Message I-25			
	z. Message I-26			
	aa. Message I-27			
	ab. Message I-28			
	ac. Message I-29			
	ad. Message I-30			
	ae. Message I-31			
	af. Message I-32			
	ag. Message I-33			

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Figure 2-3. Performance evaluation of DCT 9000 AUTODIN terminal. (continued)

NO.	TEST	PASSED	FAILED	REMARKS
4	CARD INPUT TEST (continued)			
	ah. Message I-34			
	ai. Message I-35			
	aj. Message I-36			
	ak. Message I-37			
	al. Message I-38			
	am. Message I-39			
	an. Message I-40			
	ao. Message I-41			
	ap. Message I-42			
	aq. Message I-44			
	ar. Message I-45			
	as. Message I-46			
	at. Message I-47			
	au. Message I-48			
	av. Message I-49			
	aw. Message I-50			
	ax. Message I-51			
	ay. Message I-52			

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Figure 2-3. Performance evaluation of DCT 9000 AUTODIN terminal. (continued)

4	CARD INPUT TEST (continued)
COMMENTS:	

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Figure 2-3. Performance evaluation of DCT 9000 AUTODIN terminal. (continued)

DCT 9000 AUTODIN TERMINAL TESTS (CCR 702-1-3)		PERIOD OF TEST: START <u> </u> Z STOP <u> </u> Z		DATE (DAY/MONTH/YEAR) (<u> </u>) TEST ENGR SIGNATURE <u> </u>	
DATA SHEET		PASSED	FAILED	REMARKS	
NO.	TEST				
5	PAPER TAPE ITA-2 TERMINAL TEST				
	a. Message II-01				
	b. Message II-02				
	c. Message II-03				
	d. Message II-04				
	e. Message II-05				
	f. Message II-06				
	g. Message II-07				
	h. Message II-08				
	i. Message II-09				
	j. Message II-10				
	k. Message II-11				
	l. Message II-12				
	m. Message II-13				
	n. Message II-14				

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Figure 2-3. Performance evaluation of DCT 9000 AUTODIN terminal. (continued)

NO.	TEST	PASSED	FAILED	REMARKS
5	PAPER TAPE ITA-2 TERMINAL TEST (continued)			
	o. Message II-15			
	p. Message II-16			
	q. Message II-17			
	r. Message II-18			
	s. Message II-19			
	t. Message II-20			
	u. Message II-21			
	v. Message II-22			
	w. Message II-23			
	x. Message II-24			
	y. Message II-25			
	z. Message II-26			
	aa. Message II-27			
	ab. Message II-28			
	ac. Message II-29			
	ad. Message II-30			
	ae. Message II-31			
	af. Message II-33			

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Figure 2-3. Performance evaluation of DCT 9000 AUTODIN terminal. (continued)

NO.	TEST	PASSED	FAILED	REMARKS
5	PAPER TAPE ITA-2 TERMINAL TEST (continued)			
	ag. Message II-34			
	ah. Message II-35			
COMMENTS:				

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Figure 2-3. Performance evaluation of DCT 9000 AUTODIN terminal. (continued)

DCT 9000 AUTODIN TERMINAL TESTS (CCR 702-1-3)			PERIOD OF TEST: START <u> </u> Z STOP <u> </u> Z		DATE (DAY/MONTH/YEAR) (<u> </u>)
DATA SHEET					
NO.	TEST	PASSED	FAILED	REMARKS	
6	PAPER TAPE FIPS-14 TERMINAL TEST				
	a. Message III-01				
	b. Message III-02				
	c. Message III-03				
	d. Message III-04				
	e. Message III-05				
	f. Message III-06				
	g. Message III-07				
	h. Message III-08				
	i. Message III-09				
	j. Message III-10				
	k. Message III-11				
	l. Message III-12				
	m. Message III-13				
	n. Message III-14				
	o. Message III-15				

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Figure 2-3. Performance evaluation of DCT 9000 AUTODIN terminal. (continued)

NO.	TEST	PASSED	FAILED	REMARKS
6	PAPER TAPE FIPS-14 TERMINAL TEST (continued)			
	p. Message III-16			
	q. Message III-17			
	r. Message III-18			
	s. Message III-19			
	t. Message III-20			
	u. Message III-21			
	v. Message III-22			
	w. Message III-23			
	x. Message III-24			
	y. Message III-25			
COMMENTS:				

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Figure 2-3. Performance evaluation of DCT 9000 AUTODIN terminal. (continued)

DCT 9000 AUTODIN TERMINAL TESTS (CCR 702-1-3)		PERIOD OF TEST: START _____ Z STOP _____ Z		DATE (DAY/MONTH/YEAR) (_____) TEST ENGR SIGNATURE _____	
DATA SHEET		PASSED	FAILED	REMARKS	
NO.	TEST				
7	MAGNETIC TAPE (CARD FORMAT) TERMINAL TEST				
	a. Place Magnetic Tape "A"				
	b. Close Receive Tape and Label "Test Tape Z"				
	c. Check Log Printouts				
COMMENTS:					

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Figure 2-3. Performance evaluation of DCT 9000 AUTODIN terminal. (continued)

DCT 9000 AUTODIN TERMINAL TESTS (CCR 702-1-3)				PERIOD OF TEST: START _____ Z STOP _____ Z		DATE (DAY/MONTH/YEAR) (_____)	
DATA SHEET				PASSED	FAILED	REMARKS	
NO.	TEST						
8	MAGNETIC TAPE TESTS LMF'S BB AND DD						
	a. Message V-01						
	b. Message V-02						
	c. Message V-03						
	d. Message V-04						
	e. Message V-05						
	f. Message V-06						
	g. Message V-07						
	h. Message VI-01						
	i. Message VI-02						
	j. Message VI-03						
	k. Message VI-04						
	l. Message VI-05						
	m. Message VI-06						
n. Message VI-07							

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Figure 2-3. Performance evaluation of DCT 9000 AUTODIN terminal. (continued)

8	MAGNETIC TAPE TESTS LMF'S BB AND DD (continued)
<p>COMMENTS:</p>	

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Figure 2-3. Performance evaluation of DCT 9000 AUTODIN terminal. (continued)

DCT 9000 AUTODIN TERMINAL TESTS (CCR 702-1-3)		PERIOD OF TEST: START <u> </u> Z STOP <u> </u> Z		DATE (DAY/MONTH/YEAR) (<u> </u>)	
DATA SHEET					
NO.	TEST	PASSED	FAILED	REMARKS	
9	MAGNETIC TAPE LMF II				
	a. Prepare a Transmit Tape				
	b. Transmit the LMF II Traffic				
COMMENTS:					

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Figure 2-3. Performance evaluation of DCT 9000 AUTODIN terminal. (continued)

DCT 9000 AUTODIN TERMINAL TESTS (CCR 702-1-3)		PERIOD OF TEST: START <u> Z </u> STOP <u> Z </u>		DATE (DAY/MONTH/YEAR) (<u> </u>)	
DATA SHEET				TEST ENGR SIGNATURE <u> </u>	
NO.	TEST	PASSED	FAILED	REMARKS	
10	MAGNETIC TAPE SEARCH TEST				
	a. Mount Test Tape Procedures				
	b. Message I-2 Procedures				
	c. Message I-41 and Succeeding Messages on Test Tape "A" Procedures				
	d. Incorrect Pilot Header Card Procedures				
COMMENTS:					

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Figure 2-3. Performance evaluation of DCT 9000 AUTODIN terminal. (continued)

DCT 9000 AUTODIN TERMINAL TESTS (CCR 702-1-3)		PERIOD OF TEST: START <u> </u> Z STOP <u> </u> Z		DATE (DAY/MONTH/YEAR) (<u> </u>)	
DATA SHEET				TEST ENGR SIGNATURE	
NO.	TEST	PASSED	FAILED	REMARKS	
11	THRUPUT TEST				
	a. Prepare Card Output Copies				
	b. Activate Receive Side				
	c. Disable Receive Side				
	d. Perform Similar Tests				
COMMENTS:					

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Figure 2-3. Performance evaluation of DCT 9000 AUTODIN terminal. (continued)

DCT 9000 AUTODIN TERMINAL TESTS (CCR 702-1-3)		PERIOD OF TEST: START <u> Z </u> STOP <u> Z </u>		DATE (DAY/MONTH/YEAR) (<u> </u>)	
DATA SHEET				TEST ENGR SIGNATURE _____	
NO.	TEST	PASSED	FAILED	REMARKS	
12	SAT-5 24K TCC OPTION PARAM- ETER CARD TEST				
	a. Enter Parameter Card				
	b. Enter Parameter Card				
	c. Enter a Parameter -- Place in Card Reader Hopper				
	d. Enter a Parameter Card				
	e. Enter a Parameter Card				
	f. Enter a Parameter Card				
	g. Enter a Parameter Card				
	h. Enter a Parameter Card				
	i. Enter a Parameter Card				
	j. Enter a Parameter Card				
	k. Enter a Parameter Card				
	l. Enter a Parameter Card				

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Figure 2-3. Performance evaluation of DCT 9000 AUTODIN terminal. (continued)

NO.	TEST	PASSED	FAILED	REMARKS
12	SAT-5 24K TCC OPTION PARAM- ETER CARD TEST (continued)			
	m. Enter a Parameter Card			
	n. Enter a Parameter Card			
	o. RI and CIC Parameter Card Loading Procedures			
	p. RI and CIC Parameter Card Loading Procedures			
	q. RI and CIC Parameter Card Loading Procedures			
	r. Statistics Procedures			
	s. Reload Statistics Procedures			
	t. On-Line Test Procedures			
COMMENTS:				

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Figure 2-3. Performance evaluation of DCT 9000 AUTODIN terminal. (continued)

DCT 9000 AUTODIN TERMINAL TESTS (CCR 702-1-3)		PERIOD OF TEST: START <u> </u> Z STOP <u> </u> Z		DATE (DAY/MONTH/YEAR) (<u> </u>)	
DATA SHEET				TEST ENGR SIGNATURE <u> </u>	
NO.	TEST	PASSED	FAILED	REMARKS	
13	HEARING CONSERVATION TEST				
	a. Noise Level Test				
	b. Noise Test -- Hearing Conservation Program				
	c. Test of Noise -- Octave Baud Analysis				
	d. Noise Levels				
	e. Hearing Conservation Programs				
COMMENTS:					

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Figure 2-3. Performance evaluation of DCT 9000 AUTODIN terminal. (continued)

DCT 9000 AUTODIN TERMINAL TESTS (CCR 702-1-3)		PERIOD OF TEST: START <u> </u> Z STOP <u> </u> Z		DATE (DAY/MONTH/YEAR) (<u> </u>)	
DATA SHEET				TEST ENGR SIGNATURE <u> </u>	
NO.	TEST	PASSED	FAILED	REMARKS	
14	SEES COMPATIBILITY TEST				
	a. Traffic for SEES Receive Servo 1				
	b. For SEES Receive Servo 2				
	c. For Servo 1				
	d. No Title				
	e. Transmit Test Tape "D"				
	f. No Title				
	g. Close Out Tapes				
COMMENTS:					

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Figure 2-3. Performance evaluation of DCT 9000 AUTODIN terminal. (continued)

DCT 9000 AUTODIN TERMINAL TESTS (CCR 702-1-3)				PERIOD OF TEST: START <u> Z </u> STOP <u> Z </u>		DATE (DAY/MONTH/YEAR) (<u> </u>) TEST ENCR SIGNATURE <u> </u>	
DATA SHEET		PASSED	FAILED	REMARKS			
NO.	TEST						
15	SELF-TEST PROCEDURES						
	a. RI and CIC Parameter Card Loading Procedures						
	b. RI and CIC Parameter Card Loading Procedures						
	c. RI and CIC Parameter Card Loading Procedures						
	d. Statistics Procedures						
	e. Reload Statistic Procedures						
COMMENTS:							

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Figure 2-3. Performance evaluation of DCT 9000 AUTODIN terminal. (continued)

DCT 9000 AUTODIN TERMINAL TESTS (CCR 702-1-3)		PERIOD OF TEST: START _____ Z STOP _____ Z		DATE (DAY/MONTH/YEAR) ()	
DATA SHEET					
NO.	TEST	PASSED	FAILED	REMARKS	
16	ON-LINE TEST PROCEDURES				
	a. Message S-1 Procedures				
	b. Message S-2 to S-5 Procedures				
	c. Message S-6 Procedures				
	d. Message S-7 to S-10 Procedures				
	e. Message S-11 Procedures				
	f. Message S-12 to S-15 Procedures				
	g. Message S-16 Procedures				
	h. Message S-17 to S-20 Procedures				
	i. Card Punch Down Procedure				
	j. Message S-21 Procedures				

Figure 2-3. Performance evaluation of DCT 9000 AUTODIN terminal. (continued)

NO.	TEST	PASSED	FAILED	REMARKS
16	ON-LINE TEST PROCEDURES (continued)			
	k. Card Punch Up Procedures			
	l. Messages S-21 Procedures			
	m. Mark Receive Servo 1 Down Procedures			
	n. Message S-1 Procedures			
	o. Receive Servo 1 Mark Up Procedures			
	p. Close Receive Servo 1 Procedures			
	q. Open Receive Servo 1 Procedures			
	r. Message S-22 Procedures			
	s. Open Receive Servo 1 Procedures			
	t. Message S-22 CANTRAN Procedures			
	u. Reloading Procedures			
	v. Message S-23 Procedures			

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Figure 2-3. Performance evaluation of DCT 9000 AUTODIN terminal. (continued)

NO.	TEST	PASSED	FAILED	REMARKS
16	ON-LINE TEST PROCEDURES (continued)			
	w. Message S-24 to S-27 Procedures			
	x. Card Count Procedures			
	y. Message II-38 Procedures			
	z. Transmit Intercept Procedures			
	aa. Distribution Table Procedures			
	ab. Pilot Transmission Procedures			
	ac. Statistics Procedures			
	ad. Clear Statistics Procedures			
COMMENTS:				

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Figure 2-3. Performance evaluation of DCT 9000 AUTODIN terminal. (continued)

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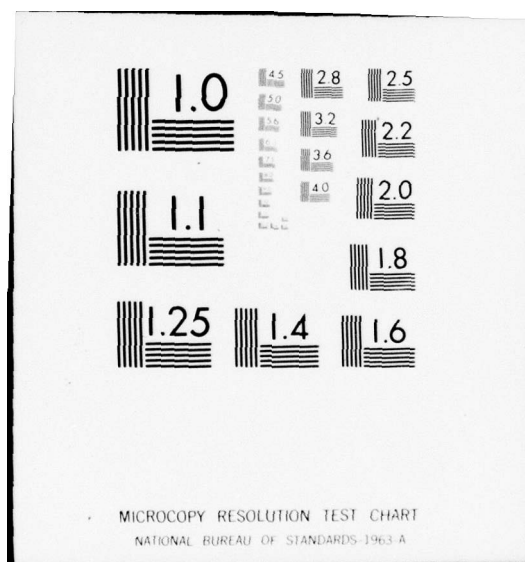
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DCT 9000 AUTODIN TERMINAL TESTS (CCR 702-1-3)		PERIOD OF TEST: START <u> </u> Z STOP <u> </u> Z		DATE (DAY/MONTH/YEAR) (<u> </u>)	
DATA SHEET				TEST ENCR SIGNATURE <u> </u>	
NO.	TEST	PASSED	FAILED	REMARKS	
17	SYSTEM LOAD PROCEDURES				
	a. Set Data Entry Switches				
	b. Enter Julian Date on Console Inquiry Unit (CIU)				
	c. Enter "LDRI" Operator Request on CIU				
	d. Initiate Request on CIU				
COMMENTS:					

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Figure 2-3. Performance evaluation of DCT 9000 AUTODIN terminal. (continued)

DCT 9000 AUTODIN TERMINAL TESTS (CCR 702-1-3)		DATE (DAY/MONTH/YEAR) ()	
DATA SHEET		PERIOD OF TEST: START <u> Z </u> STOP <u> Z </u>	
NO.	TEST	PASSED	FAILED
18	CONTROLS AND INDICATORS TERMINAL TEST		
	a. Chan X or Chan Y Switch Test Procedures		
	b. On-Line/Off-Line Switches Test Procedures		
COMMENTS:			

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Figure 2-3. Performance evaluation of DCT 9000 AUTODIN terminal. (continued)

DATA SHEET		DCT 9000 AUTODIN TERMINAL TESTS (CCR 702-1-3)		PERIOD OF TEST: START <u> </u> Z STOP <u> </u> Z		DATE (DAY/MONTH/YEAR) (<u> </u>) TEST ENGR SIGNATURE <u> </u>	
NO.	TEST	PASSED	FAILED	REMARKS			
19	TRANSMIT AND RECEIVE TEST PROCEDURES						
	a. CC, CT and Single Card Procedures						
	b. Classification and Precedence Procedures						
	c. Invalid Header Procedures						
	d. Card Count Error Procedures						
	e. Cancel Messages Procedures						
	f. Messages I-39, I-40, I-42, I-43, I-44, I-47 and I-48						
	g. HDR/TRL Mismatch Procedures						
	h. Card Punch Down Procedures						

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Figure 2-3. Performance evaluation of DCT 9000 AUTODIN terminal. (continued)

NO.	TEST	PASSED	FAILED	REMARKS
19	TRANSMIT AND RECEIVE TEST PROCEDURES (continued)			
	i. Card Punch Up Procedures			
	j. Open Deferred Output Procedures			
	k. Messages I-1, I-2, I-7, I-8, I-10, I-12, I-13, I-14, I-16, I-36, I-37 I-42 and I-51			
	l. Close Deferred Output			
	m. Prepare for Deferred Input Procedures			
	n. Message I-1 Procedures			
	o. Open Deferred Input Procedures			
	p. Open Remaining Deferred Input Procedures			
	q. Close Deferred Input Procedures			
	r. Maximum RI Table Load Procedures			
	s. RI Cards 1 through 7 (app 1) Loading Procedures			

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Figure 2-3. Performance evaluation of DCT 9000 AUTODIN terminal. (continued)

NO.	TEST	PASSED	FAILED	REMARKS
19	TRANSMIT AND RECEIVE TEST PROCEDURES (continued)			
	t. RI Cards 8 through 14 Loading Procedures			
	u. Messages D-8 to D-14 Procedures			
	v. RI Cards 15 through 18 Loading Procedures			
	w. Messages D-15 to D-18 Procedures			
	x. RI Cards 19 through 21 Loading Procedures			
	y. Messages D-19 to D-21 Procedures			
	z. RI Cards 22 through 25 Loading Procedures			
	aa. Messages D-18 and D-22 Procedures			
	ab. Messages D-26 to D-32 Procedures			
	ac. RI Cards 33 to 39 Loading Procedures			
	ad. Messages D-33 to D-39 Procedures			

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Figure 2-3. Performance evaluation of DCT 9000 AUTODIN terminal. (continued)

NO.	TEST	PASSED	FAILED	REMARKS
19	TRANSMIT AND RECEIVE TEST PROCEDURES (continued)			
	ae. RI Cards 40 to 46 Procedures			
	af. Messages D-40 to D-46 Procedures			
	ag. RI Cards 47, 48, 49, 50, 59, 60, 64 and 68 Loading Procedures			
	ah. Messages D-47, D-48, D-49, D-50, D-59, D-60, D-64 and D-68 Procedures			
	ai. RI Cards 51, 52, 53, 54, 55, 58, 61 and 65 Procedures			
	aj. RI Cards 56 and 66 Procedures			
	ak. Messages D-56 and D-66 Procedures			
	al. Messages D-57 and D-67 Procedures			
	am. Print RI Table Procedures			
	an. Message Retrieval Procedures			

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Figure 2-3. Performance evaluation of DCT 9000 AUTODIN terminal. (continued)

NO.	TEST	PASSED	FAILED	REMARKS
19	TRANSMIT AND RECEIVE TEST PROCEDURES (continued)			
	ao. Message Retrieval Procedures			
	ap. Disc Recall Procedures			
	aq. Disc Recall Procedures			
	ar. Prepare for History Recall Procedures			
	as. History Recall Procedures			
	at. TOF and LU# History Recall Procedures			
	au. OSRI, SSN, TOF and LU# History Recall Procedures			
	av. OSRI, SSN, TOF and Pilot RI History Recall Procedures			
	aw. History Dump Procedures			
	ax. Headers File Procedures			
	ay. List Card Procedures			
	az. Reproduce Card Procedures			
	ba. Close History Tapes Procedures			

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Figure 2-3. Performance evaluation of DCT 9000 AUTODIN terminal. (continued)

NO.	TEST	PASSED	FAILED	REMARKS
19	TRANSMIT AND RECEIVE TEST PROCEDURES (continued)			
	bb. Open History Tape Procedures			
	bc. System Status Procedures			
	bd. Statistics Procedures			
	be. Clear Statistics Procedures			
	bf. Alternate Route Card Punch and Paper Tape Punch Procedures			
	bg. Invalid Alternate Route Procedures			
	bh. F3 Op Req Test Procedures			
	bi. History Closure Procedures			
	bj. Restart Procedures			
	bk. Additional History Tape Procedures			

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Figure 2-3. Performance evaluation of DCT 9000 AUTODIN terminal. (continued)

19	TRANSMIT AND RECEIVE TEST PROCEDURES (continued)
<p>COMMENTS:</p>	

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Figure 2-3. Performance evaluation of DCT 9000 AUTODIN terminal. (continued)

2-5. OPTICAL CHARACTER READER (OCR).

a. General. The purpose of this test is to evaluate the operational performance of the OCR.

b. Specifications. The OCR must operate as prescribed in CCC-TED-75-TP-205.

c. Required Tests. As listed in document cited in subparagraph b above and figure 2-4; USACC Forms 388-R through 388-20-R (Test).

d. Test Equipment Required. None.

e. Test Procedures. As prescribed in document cited in subparagraph b above and figure 2-4; USACC Forms 388-R through 388-20-R (Test).

OPTICAL CHARACTER READER (OCR) TESTS (CCR 702-1-3)				PERIOD OF TEST: START <u> </u> Z STOP <u> </u> Z	DATE (DAY/MONTH/YEAR) (<u> </u>) TEST ENGR SIGNATURE <u> </u>
DATA SHEET					
NO.	TEST	PASSED	FAILED	REMARKS	
1	INPUT MESSAGE FORM HEADER LINE FORMAT AND ACCURACY				
	a. Read Test Message 1-1				
	b. Read Test Message 1-2				
	c. Read Test Message 1-3				
	d. Read Test Message 1-4				
	e. Read Test Message 1-5				
	f. Read Test Message 1-6				
	g. Read Test Message 1-7				
	h. Read Test Message 1-8				
	i. Read Test Message 1-10				
	j. Read Test Message 1-11				
	k. Read Test Message 1-12				
	l. Read Test Message 1-13				
COMMENTS:					

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Figure 2-4. Performance evaluation of OCR.

OPTICAL CHARACTER READER (OCR) TESTS (CCR 702-1-3)		PERIOD OF TEST: START _____ Z STOP _____ Z		DATE (DAY/MONTH/YEAR) ()	
DATA SHEET		PASSED		REMARKS	
NO.	TEST		FAILED		
2	INPUT MESSAGE FORM SECURITY AND DRAFTER'S RELEASE TIME VALIDATION				
	a. Introduce Test Messages				
	b. Read Test Message 2-1 with "UUUU"				
	c. Read Test Message 2-2 with "EEEE"				
	d. Read Test Message 2-3 with "TTTT"				
	e. Read Test Message 2-4 with "SSSS"				
	f. Read Test Message 2-5 with "TTTT"				
	g. Read Test Message 2-6 with "TTTT"				
	h. Read Test Message 2-7 with "UUUU"				

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Figure 2-4. Performance evaluation of OCR. (continued)

NO.	TEST	PASSED	FAILED	REMARKS
2	INPUT MESSAGE FORM SECURITY AND DRAFTER'S RELEASE TIME VALIDATION (continued)			
	i. Read Test Message 2-8 with "3461330"			
	j. Read Test Message 2-9 with "3461800Z"			
	k. Read Test Message 2-10 with "34613430"			
	l. Read Test Message 2-11 with "SSSS"			
COMMENTS:				

USACC FORM 388-1-R (TEST)
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Figure 2-4. Performance evaluation of OCR. (continued)

OPTICAL CHARACTER READER (OCR) TESTS (CCR 702-1-3) DATA SHEET		PERIOD OF TEST: START _____ Z STOP _____ Z		DATE (DAY/MONTH/YEAR) ()	TEST ENGR SIGNATURE _____
NO.	TEST	PASSED	FAILED	REMARKS	
3	INPUT MESSAGE FORM CONTINUATION PAGE VERIFICATIONS				
	a. Introduce Test Messages				
	b. Read Test Message 3-1				
	c. Read Test Messages 3-3 and 3-4				
	d. Read Test Message 3-5				
COMMENTS:					

USACC FORM 388-2-R (TEST)

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Figure 2-4. Performance evaluation of OCR. (continued)

OPTICAL CHARACTER READER (OCR) TESTS (CCR 702-1-3)		DATE (DAY/MONTH/YEAR) ()	
DATA SHEET		TEST ENGR SIGNATURE	
PERIOD OF TEST: START <u> Z </u> STOP <u> Z </u>		REMARKS	
NO.	TEST	PASSED	FAILED
4	SECURITY ALTERNATE ADDRESS LOOKUP		
	Introduce Test Messages 8-2, 9-1, 9-2, 9-3 and 9-4		
COMMENTS:			

USACC FORM 388-3-R (TEST)
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Figure 2-4. Performance evaluation of OCR. (continued)

OPTICAL CHARACTER READER (OCR) TESTS (CCR 702-1-3)			PERIOD OF TEST: START <u> </u> Z STOP <u> </u> Z		DATE (DAY/MONTH/YEAR) (<u> </u>)	
DATA SHEET						
NO.	TEST	PASSED	FAILED	REMARKS		
5	LINE TYPING ON THE INPUT MESSAGE FORM					
	a. Introduce Test Messages					
	b. Read Test Message 4-1					
	c. Read Test Message 4-2					
COMMENTS:						

USACC FORM 388-4-R (TEST)
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Figure 2-4. Performance evaluation of OCR. (continued)

OPTICAL CHARACTER READER (OCR) TESTS (CCR 702-1-3)		PERIOD OF TEST: START <u> </u> Z STOP <u> </u> Z		DATE (DAY/MONTH/YEAR) (<u> </u>) TEST ENGR SIGNATURE <u> </u>	
DATA SHEET					
NO.	TEST	PASSED	FAILED	REMARKS	
6	PAGING				
	a. Introduce Test Message				
	b. Read Test Message 5-1				
COMMENTS:					

USACC FORM 388-5-R (TEST)
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Figure 2-4. Performance evaluation of OCR. (continued)

OPTICAL CHARACTER READER (OCR) TESTS (CCR 702-1-3)				PERIOD OF TEST: START _____ Z STOP _____ Z		DATE (DAY/MONTH/YEAR) ()	
DATA SHEET							
NO.	TEST	PASSED	FAILED	REMARKS			
7	SECTIONING						
	a. Introduce Test Messages						
	b. Read Test Message 6-1						
	c. Read Test Message 6-2						
	d. Read Test Message 6-1						
COMMENTS:							

USACC FORM 388-6-R (TEST)
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Figure 2-4. Performance evaluation of OCR. (continued)

OPTICAL CHARACTER READER (OCR) TESTS (CCR 702-1-3)			PERIOD OF TEST: START <u> </u> Z STOP <u> </u> Z		DATE (DAY/MONTH/YEAR) (<u> </u>)	
DATA SHEET						
NO.	TEST	PASSED	FAILED	REMARKS		
8	RI/ENTRY VIA CRT					
	a. Introduce Test Messages					
	b. Read Test Message 7-1					
	c. Read Test Message 7-2					
	d. Read Test Message 7-3					
	e. Enter Via the CRT Single Page Message					
COMMENTS:						

USACC FORM 388-7-R (TEST)

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Figure 2-4. Performance evaluation of OCR. (continued)

OPTICAL CHARACTER READER (OCR) TESTS (CCR 702-1-3)		PERIOD OF TEST: START _____ Z STOP _____ Z		DATE (DAY/MONTH/YEAR) (_____)	
DATA SHEET				TEST ENGR SIGNATURE _____	
NO.	TEST	PASSED	FAILED	REMARKS	
9	REJECT CHARACTER CORRECTION VIA CRT				
	a. Introduce Test Messages				
	b. Read Test Message 8-1				
	c. Read Test Message 8-2				
COMMENTS:					

USACC FORM 388-8-R (TEST)
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Figure 2-4. Performance evaluation of OCR. (continued)

OPTICAL CHARACTER READER (OCR) TESTS (CCR 702-1-3)		PERIOD OF TEST: START _____ Z STOP _____ Z		DATE (DAY/MONTH/YEAR) (_____)	
DATA SHEET				TEST ENGR SIGNATURE _____	
NO.	TEST	PASSED	FAILED	REMARKS	
10	MESSAGE COMPOSITION VIA CRT				
	a. Call Up Message Format on CRT				
	b. Call Up Message Format on CRT SECRET				
	c. Call Up Message Format on CRT TOP SECRET				
	d. Call Up Message Format on CRT Plain Dress Message				
COMMENTS:					

USACC FORM 388-9-R (TEST)

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Figure 2-4. Performance evaluation of OCR. (continued)

OPTICAL CHARACTER READER (OCR) TESTS (CCR 702-1-3) DATA SHEET		PERIOD OF TEST:		DATE (DAY/MONTH/YEAR) () TEST ENCR SIGNATURE _____
		START	STOP	
NO.	TEST	PASSED	FAILED	REMARKS
11	SEGREGATION OF RI'S BY AUTOMATIC SWITCHING CENTERS			
	Enter Message CRT AIG 888 and PLA's			
COMMENTS:				

 USACC FORM 388-10-R (TEST)
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Figure 2-4. Performance evaluation of OCR. (continued)

OPTICAL CHARACTER READER (OCR) TESTS (CCR 702-1-3)			PERIOD OF TEST: START _____ Z STOP _____ Z		DATE (DAY/MONTH/YEAR) (_____) TEST ENGR SIGNATURE _____	
DATA SHEET						
NO.	TEST	PASSED	FAILED	REMARKS		
12	AUTOMATIC RI/PLA UPDATE					
	a. Introduce Messages Via the OCR and CRT PLA's Not On File					
	b. Call Up Routing Indicator/PLA List					
COMMENTS:						

USACC FORM 388-11-R (TEST)
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Figure 2-4. Performance evaluation of OCR. (continued)

DATA SHEET		PERIOD OF TEST:		DATE (DAY/MONTH/YEAR)
OPTICAL CHARACTER READER (OCR) TESTS (CCR 702-1-3)		START	STOP	TEST ENGR SIGNATURE
NO.	TEST	PASSED	FAILED	REMARKS
13	PRIORITY PROCESSING OF TRAFFIC			
	a. Introduce Test Messages Via 915			
	b. Open Pressure Gate			
	c. Make Paper Tape Punch Ready Retry Option			
COMMENTS:				

USACC FORM 388-12-R (TEST)
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Figure 2-4. Performance evaluation of OCR. (continued)

OPTICAL CHARACTER READER (OCR) TESTS (CCR 702-1-3)		PERIOD OF TEST: START <u> </u> Z STOP <u> </u> Z		DATE (DAY/MONTH/YEAR) (<u> </u>)	
DATA SHEET		TEST ENGR SIGNATURE _____			
NO.	TEST	PASSED	FAILED	REMARKS	
14	INPUT MESSAGE FORM TEXTUAL FORMAT VERIFICATION				
	a. Introduce Test Messages				
	b. Read Test Message 10-1				
	c. Read Test Message 10-2				
	d. Read Test Message 10-3				
COMMENTS					

USACC FORM 388-13-R (TEST)
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Figure 2-4. Performance evaluation of OCR. (continued)

OPTICAL CHARACTER READER (OCR) TESTS (CCR 702-1-3)		PERIOD OF TEST: START <u> </u> Z STOP <u> </u> Z		DATE (DAY/MONTH/YEAR) (<u> </u>)	
DATA SHEET		TEST		PASSED	FAILED
NO.	REMARKS				
15	PLA ENTRY VIA OCR - TO-LINE VERIFICATION				
	a. Introduce Test Messages				
	b. Enter Test Message 11-1				
	c. Enter Test Message 11-2				
	d. Enter Test Message 11-3				
	e. Release the Message to System				
	f. Enter Test Message 11-4				
	g. Release the Message to System				
	h. Enter Test Message 11-5				
	i. Release the Message to System				
	j. Enter Test Message 11-6				
	k. Release the Message to System				

USACC FORM 388-14-R (TEST)

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Figure 2-4. Performance evaluation of OCR. (continued)

15	PLA ENTRY VIA OCR - TO-LINE VERIFICATION (continued)
<p>COMMENTS:</p>	

USACC FORM 388-14-R (TEST)
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Figure 2-4. Performance evaluation of OCR. (continued)

OPTICAL CHARACTER READER (OCR) TESTS (CCR 702-1-3)		PERIOD OF TEST: START <u> </u> Z STOP <u> </u> Z		DATE (DAY/MONTH/YEAR) (<u> </u>)	
DATA SHEET				TEST ENGR SIGNATURE <u> </u>	
NO.	TEST	PASSED	FAILED	REMARKS	
16	READDRESSAL OF MESSAGES				
	a. Retype Message 3-5 with New FM and TO Lines				
	b. Repeat the Procedure				
COMMENTS					

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Figure 2-4. Performance evaluation of OCR. (continued)

OPTICAL CHARACTER READER (OCR) TESTS (CCR 702-1-3)		PERIOD OF TEST: START <u> </u> Z STOP <u> </u> Z		DATE (DAY/MONTH/YEAR) (<u> </u>)	
DATA SHEET				TEST ENGR SIGNATURE	
NO.	TEST	PASSED	FAILED	REMARKS	
17	ROUTING FILE UPDATE AND MAINTENANCE VIA THE OCR				
	a. Type in RFM Upper Left Corner of CRT				
	b. Type in OCR in Line 2				
	c. Terminate the Operation				
COMMENTS:					

USACC FORM 388-16-R (TEST)
1 MAR 77

Figure 2-4. Performance evaluation of OCR. (continued)

OPTICAL CHARACTER READER (OCR) TESTS (CCR 702-1-3)		PERIOD OF TEST: START <u> </u> Z STOP <u> </u> Z		DATE (DAY/MONTH/YEAR) (<u> </u>)
DATA SHEET		PASSED	FAILED	REMARKS
NO.	TEST			
18	ROUTING FILE MAINTENANCE VIA CRT AND TT			
	a. Call Up Routing File Format			
	b. Call Up Routing File Format			
	c. Verify the Changes			
	d. Type in TT on the CRT to Transfer Control			
COMMENTS:				

USACC FORM 388-17-R (TEST)

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Figure 2-4. Performance evaluation of OCR. (continued)

OPTICAL CHARACTER READER (OCR) TESTS (CCR 702-1-3)		PERIOD OF TEST: START <u> Z </u> STOP <u> Z </u>		DATE (DAY/MONTH/YEAR) (<u> </u>)	
DATA SHEET				TEST ENGR SIGNATURE _____	
NO.	TEST	PASSED	FAILED	REMARKS	
19	PLAIN LANGUAGE ADDRESS LOOKUP				
	a. Introduce Test Messages				
	b. Select Several Plain Language Addresses				
	c. Prepare UNCLASSIFIED, One-Page Messages				
	d. Select Several Plain Language addresses				
	e. Repeat Test 3-2				
	f. Select Five Plain Language Addresses				
	g. Prepare a One-Page Message, Type "(MAIL)" and "(COURIER)"				
	h. Select an AIG				
	i. Prepare a One-Page Message				

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Figure 2-4. Performance evaluation of OCR. (continued)

NO.	TEST	PASSED	FAILED	REMARKS
19	PLAIN LANGUAGE ADDRESS LOOKUP (continued)			
	j. Select an Invalid AIG			
	k. Prepare a Single-Page Message			
COMMENTS:				

USACC FORM 388-18-R (TEST)

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Figure 2-4. Performance evaluation of OCR. (continued)

OPTICAL CHARACTER READER (OCR) TESTS (CCR 702-1-3)		PERIOD OF TEST: START _____ Z STOP _____ Z		DATE (DAY/MONTH/YEAR) () TEST ENGR SIGNATURE _____	
DATA SHEET	TEST	PASSED	FAILED	REMARKS	
NO.	TEST	PASSED	FAILED	REMARKS	
20	SECURITY ADDRESS MISMATCH				
	a. Introduce Test Messages				
	b. Select Several Plain Language Addresses				
	c. Prepare CLASSIFIED, Multiple-Address Messages				
COMMENTS:					

USACC FORM 388-19-R (TEST)
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Figure 2-4. Performance evaluation of OCR. (continued)

OPTICAL CHARACTER READER (OCR) TESTS (CCR 702-1-3)		PERIOD OF TEST: START <u> Z </u> STOP <u> Z </u>	DATE (DAY/MONTH/YEAR) (<u> </u>)
DATA SHEET			TEST ENGR SIGNATURE <u> </u>
NO.	TEST	PASSED	FAILED
21	INPUT MESSAGE FORM ON-LINE PAPER TAPE/CARD RECEIVE TEST		
	a. Introduce Self- Addressed Test Message		
	b. Read Test Messages 12-1 through 12-5		
	c. Read Test Message 12-6		
	d. Read Test Message 12-7		
	e. Read Test Message 12-8		
	f. Read Test Message 12-9		
	g. Read Test Message 12-10 with "TTTT"		
	h. Read Test Message 12-11 with "EEEE"		
	i. Read Test Message 12-12 with "ZA3W"		

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Figure 2-4. Performance evaluation of OCR. (continued)

NO.	TEST	PASSED	FAILED	REMARKS
21	INPUT MESSAGE FORM ON-LINE PAPER TAPE/CARD RECEIVE TEST (continued)			
	j. Read Test Message 12-13 with "UUUU"			
	k. DCT 9000 in a Simulated Down Condition			
COMMENTS:				

USACC FORM 388-20-R (TEST)

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Figure 2-4. Performance evaluation of OCR. (continued)

2-6. TELETYPEWRITER CONTROL UNIT (TCU) C-7050/G.

a. General. The purpose of this test is to assess the operational status of the TCU. The TCU is used to control and coordinate message traffic between teletypewriter equipment at a terminal and an Automatic Digital Message Switching Center (ADMSC).

b. Specifications. The TCU must perform in accordance with TM 11-5815-335-12.

c. Required Tests. As indicated on figure 2-5; USACC Form 389-R (Test).

d. Test Equipment and Special Material Required.

(1) Multimeter.

(2) Card Extractor.

(3) Test message "fox trot" to be used with teletypewriter input device.

e. Test Procedures. As prescribed in TM 11-5815-335-12. Record data on figure 2-5; USACC Form 389-R (Test).

TELETYPEWRITER CONTROL UNIT C-7050/G TESTS (CCR 702-1-3)		PERIOD OF TEST: START <u> </u> Z STOP <u> </u> Z	DATE (DAY/MONTH/YEAR) (<u> </u>) TEST ENGR SIGNATURE <u> </u>
DATA SHEET			
REFERENCE: TM 11-5815-335-12	TEST	REMARKS	
Step 14, p 5-5	Lamp Test Switches		
Step 17, p 5-5	Simulated Start Control Sequence		
Step 18, p 5-6	Simulated ACK-1 Control Sequence		
Step 19, p 5-6	Simulated ACK-2 Control Sequence		
Step 20, p 5-6	Simulated Repeat Control Sequence		
Step 21, p 5-6	Simulated Cancel Control Sequence		
Step 22, p 5-7	Simulated Retransmit Control Sequence		
Step 23, p 5-7	Simulated Stop Control Sequence		
Step 24, p 5-7	Manual Cancel Control Sequence		
Step 25, p 5-8	Manual Retransmit Control Sequence		
Step 28, p 5-9	Stop at EOM (Transmit)		
Step 29, p 5-10	Stop at EOM (Receive)		
Step 30, p 5-11	Abnormal Input Device Detection		
Step 31, p 5-12	Abnormal Output Device Detection		
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Figure 2-5. Performance evaluation of TCU C-7050/G.

REFERENCE:	TEST	REMARKS
TM 11-5815-335-12		
Step 32, p 5-13	Cancel During Transmission	
Para 2-17	Measure Timing	
Para 2-15b	Measure Power Supply Output Voltage	
- -	TD Step (TCU or Crypto)	
COMMENTS:		

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Figure 2-5. Performance evaluation of TCU C-7050/G. (continued)

CHAPTER 3

TECHNICAL EVALUATION OF TELECOMMUNICATIONS CENTER EQUIPMENT

3-1. LOW LEVEL MODIFIED AN/FGC-25X (AN/FGC-161).

a. General. The test procedures that follow primarily pertain to the low level AN/FGC-25X (AN/FGC-161) teletypewriter; however, with some modification, they can be applied to the majority of teletypewriter sets found in TCC's.

b. Specifications. The general requirements of this test are to assure that the teletypewriter units meet the performance standards specified in TM 11-5815-244-35 and MWO 11-5815-244-40-1.

c. Required Tests.

- (1) TCT-1 Perforator Power Supply Checks.
- (2) TCT-2 Printer Power Supply Checks.
- (3) TCT-3 Transmitter Tests.
- (4) TCT-4 Receiver Tests.
- (5) TCT-5 Functional Tests.

d. Test Equipment Requirements.

- (1) Multimeter.
- (2) Telegraph Test Set.
- (3) Oscilloscope.
- (4) Ammeter.

e. Test Procedures.

(1) *Preliminary Checks.* Verify that the circuit breakers serving the machine are in the OFF position and that all power cords associated with the teletype set are unplugged. Remove the equipment covers and conduct normal preoperational inspection to include ribbon, paper and tape supply, fuses and copy lamps (see para 10 of TM 11-5815-244-35).

(2) *Perforator Power Supply Checks. (TCT-1)*

(a) Remove the cover from the new terminal box on the TT-179 perforator and, with the printer unplugged, apply power to the equipment and place the perforator power switch in the ON position.

(b) Measure the power supply voltage between terminals TP-1 (+) and TP-2 (-) on the SM-D-759863 assembly. This reading should be 30 ± 1 VDC. Record this voltage on figure 3-1; USACC Form 390-R (Test).

(3) *Printer Power Supply Checks. (TCT-2)*

(a) Remove the cover from the new terminal box on the TT-119A printer. Plug the printer power cable into the assigned perforator outlet and place the printer power switch in the ON position.

(b) Measure the power supply voltage appearing between terminals TP-1 (+) and TP-2 (-) on the SM-D-759863 assembly. This reading should be 30 ± 1 VDC. Record this reading on figure 3-1; USACC Form 390-R (Test).

(c) Place the perforator and printer power switches in the OFF position. If improper voltage readings have been obtained above, power transformer patching should be checked.

(d) Since the keyboard transmit and transmitter-distributor (TD) contacts are in series through the special send terminals, only the perforator transmit module is active. To check contact voltage and current, connect the multimeter and ammeter across TP-1 (+) and TP-2 (-) of the SM-C-759849 in the perforator terminal box. Place the keyboard send-lock switch in the LOCK position and the line-break switch in the LINE position. Apply power to the perforator.

(e) Place the printer line-break switch in the BREAK position and measure the voltage across and the current between TP-1 and TP-2. The voltages should be 2 VDC or less and the current should be 70 ma or less. Record these measurements on figure 3-1; USACC Form 390-R (Test).

(f) Remove the voltmeter from TP-1 and TP-2.

(4) *Transmitter Tests. (TCT-3)*

(a) Telegraph Set Analyzer. Using a patch panel test cable, plug the telegraph set analyzer into the send equipment jack of the RED patch. If the test set does not have an oscilloscope or uses independent oscilloscope connections, bridge the oscilloscope into the equipment monitor jack. Typical oscilloscope control settings will be:

1. Vertical: 5 volts/division.
2. Horizontal: 10 ms/division.
3. Sync: Internal.

(b) Telegraph Test Set. The telegraph test set will be set up for the following conditions in accordance with TM 11-5815-244-35.

1. Low level polar, positive mark.
2. 45.45 baud.
3. 5-unit, start-stop code.
4. Peak total distortion measurement.

(c) Keyboard Transmitter.

1. Apply power to the teletypewriter set under test and start the printer and perforator motors. Depress the R and REPEAT keys on the printer keyboard, thereby generating a steady string of R's.

2. The oscilloscope trace should show positive and negative transitions of equal time duration, 6 ± 0.6 VDC (10 percent). The distortion analyzer should indicate 5 percent or less total distortion. If measurable distortion (2 percent for most test sets) is observed, operate the analyzer to determine what type of distortion is present (marking/spacing bias, marking/spacing end). Record the results on figure 3-1; USACC Form 390-R (Test).

(d) Perforator TD.

1. Operate the TD clutch by either applying 6 VDC to the control jack of the RED patch (tip +, ring -) or a ground to the tip connector. Set the keyboard-keyboard switch and tape-tape switch in the KEYBOARD-KEYBOARD position. Place the keyboard-off-reperforator switch in the REPERFORATOR position.

2. Insert a tape consisting of repeating characters of R in the TD. Place the stop-start lever in the START position. Observe the oscilloscope trace and analyzer total distortion readings as in paragraph 3-1e(4)(c)2. Record the analyzer readings on figure 3-1; USACC Form 390-R (Test). Line voltage for mark and space conditions should not vary from those observed for the keyboard transmitter.

3. Place all power and motor switches in the OFF position and unplug the TD clutch connection.

(5) Receiver Tests. (TCT-4)

(a) Selector Magnet Driver Checks.

1. Connect an oscilloscope or multimeter across TP-2 and TP-3 of the SM-C-759853 in the new TT-119 terminal box. Lift the load from the E-4 terminal and connect the ammeter between the lead (+) and the terminal (-). Apply a 6-volt steady mark condition through the receiver equipment jack on the RED patch (tip +, ring -) using a patch panel test cord. See figure 3-2 for the AN/FGC-25X off-line test connection.

2. Apply power to the printer. A negative 13.5 ± 1 VDC should exist between TP-2 (-) and TP-3 (+). The ammeter should indicate a selector magnet current of approximately 10 ma. Record these measurements on figure 3-1; USACC Form 390-R (Test). Turn off the printer.

3. Reverse the ammeter (lead -, E-4 +) and the multimeter (if used instead of the oscilloscope) TP-2 (+) and TP-3 (-). Apply a space condition through the TCU equipment jack (tip-, ring +).

4. Apply power to the printer. A positive 13.5 ± 1 VDC should be found between TP-2 (+) and TP-3 (-) and a selector magnet current of 10 ± 2 ma should be measured. Record these measurements on figure 3-1; USACC Form 390-R (Test). Turn off the printer and reconnect the load to terminal E-4.

(b) Reperforator Selector Magnet Driver Checks. Repeat the steps in paragraphs 3-1e(5)(a) 1 through 4 for the reperforator selector magnet driver. The selector magnet circuit may be opened at terminal 11 or 15 of TB-6 (TB-201A) in the TT-178. Apply the mark and space conditions as in paragraph 3-1e(5)(a) 1 above. Record the results on figure 3-1; USACC Form 390-R (Test).

(c) Orientation Range Tests.

1. With power applied to the teletypewriter under test, start the printer and reperforator motors and recheck the motor speeds (for governor type motors) as specified in paragraph 13, TM 11-5815-244-35 or paragraph 16, TM 11-5815-244-12. Place the keyboard control switch in the REPERFORATOR position.

2. Connect the telegraph test set to the receive equipment jack in the RED patch facility and connect the corresponding equipment monitor to the send miscellaneous. This permits simultaneous testing of the printer and reperforator receiver mechanisms.

3. Generate an undistorted test message with the telegraph test set. Adjust the selector mechanism rangefinder dials to the lowest setting which permits a clear copy to be received. The clear copy limit will be taken as the setting which produces one error in two 72-character lines of copy. Record this setting on figure 3-1; USACC Form 390-R (Test). Similarly, determine the highest setting which permits a clear copy and record the results.

4. Determine the difference between the high and low limits and set the rangefinder dials midway between those limits. These settings and limits may be computed from the following:

$$\text{Zero Bias Range} = (\text{High Limit Setting})$$

$$- (\text{low Limit Setting})$$

$$\text{Rangefinder Setting} = (\text{Zero Bias Range}) \div 2 \\ + (\text{Low Limit Setting})$$

Record these results on figure 3-1; USACC Form 390-R (Test). For the 60-word-per-minute (WPM) operation used in this installation, a minimum of 72 dial units zero bias range must be available (60 units is minimum at 100 WPM).

(d) Bias Tolerance Tests.

1. Generate test message with 35-percent marking bias. Adjust the rangefinder dials to the upper limit as described in paragraph 3-1e(5)(c)3 above. Record this setting on figure 3-1; USACC Form 390-R (Test).

2. Generate a test message with 35-percent spacing bias. Adjust the rangefinder dials to the lower limit as described above and record this setting on figure 3-1; USACC Form 390-R (Test).

3. Compute the bias tolerance from the following:

$$\text{Bias Tolerance} = \frac{\left(\begin{array}{c} \text{Upper Limit} \\ \text{Marking Bias} \end{array} \right) - \left(\begin{array}{c} \text{Lower Limit} \\ \text{Spacing Bias} \end{array} \right)}{2} + 35\%$$

Bias tolerance at 60 WPM should be 35 percent with a maximum of 40 percent. Bias tolerance at 100 WPM should be 35 percent. Record the actual tolerance on figure 3-1; USACC Form 390-R (Test).

(e) End Bias Tolerance Test.

1. Generate a test message with 35-percent spacing end distortion. Adjust the rangefinder dials to the upper copy limit as described in paragraph 3-1e(5)(c)3 above. Record the setting on figure 3-1; USACC Form 390-R (Test).

2. Generate a test message with 35-percent marking end distortion. Adjust the rangefinder dials to the lower copy limit as above. Record this setting on figure 3-1; USACC Form 390-R (Test).

3. Compute the end distortion tolerance from the following:

$$\text{End Tolerance} = \frac{\left(\begin{array}{c} \text{Upper Limit} \\ \text{Spacing End} \end{array} \right) - \left(\begin{array}{c} \text{Lower Limit} \\ \text{Marking End} \end{array} \right)}{2} + 35\%$$

End distortion tolerance should not exceed 35 percent. At 100 WPM, end distortion should not exceed 30 percent (nominal). Record the actual measurements on figure 3-1; USACC Form 390-R (Test).

(f) Internal Bias Evaluation. Internal bias is a computed evaluation of inherent mechanical "slop" in the selector mechanism, and it is the difference between the bias and end distortion orientation points. Compute these orientation points as follows:

$$\begin{aligned} \text{Bias Orientation Point} &= \frac{\left(\begin{array}{c} \text{Upper Limit} \\ \text{Marking Bias} \end{array} \right) - \left(\begin{array}{c} \text{Lower Limit} \\ \text{Spacing Bias} \end{array} \right)}{2} \\ &+ \left(\begin{array}{c} \text{Lower Limit} \\ \text{Spacing Bias} \end{array} \right) \\ \text{End Orientation Point} &= \frac{\left(\begin{array}{c} \text{Upper Limit} \\ \text{Spacing End} \end{array} \right) - \left(\begin{array}{c} \text{Lower Limit} \\ \text{Marking End} \end{array} \right)}{2} \\ &+ \left(\begin{array}{c} \text{Lower Limit} \\ \text{Marking End} \end{array} \right) \end{aligned}$$

Calculate these points for each TT-119 and TT-178 and enter them on figure 3-1; USACC Form 390-R (Test).

(6) *Functional Tests. (TCT-5)*

(a) Reset the rangefinder dials to the settings determined in paragraph 3-1e(5)(c)3 and recorded for each machine on figure 3-1; USACC Form 390-R (Test). Disconnect the telegraph test set and patch the receive equipment to the send equipment in the RED patch facility. Operate the TD clutch per paragraph 3-1e(4)(d)1. See figure 3-3 for off-line test connections.

(b) Refer to TCT-5 Functional Tests on figure 3-1; USACC Form 390-R (Test) for control and operational requirements. These checks involve only equipment functions which affect teletype performance.

TELETYPEWRITER TESTS (CCP 702-1-3) DATA SHEET	PERIOD OF TEST	DATE (DAY/MONTH/YEAR) ()
	START _____ Z	TEST ENGR SIGNATURE _____
	STOP _____ Z	
	TT _____ WPM	
TCT-1 PERFORATOR POWER SUPPLY CHECKS		
PARAGRAPH	MEASUREMENTS	CORRECT RESPONSE
3-1e(2)(b)		30±1 VDC
TCT-2 PRINTER POWER SUPPLY CHECKS		
3-1e(3)(b)		30±1 VDC
3-1e(3)(e)		2 VDC or less - current < 70 ma
TCT-3 TRANSMITTER TESTS		
3-1e(4)(c) <u>2</u>		Oscilloscope display shows + and - transitions 6±0.6 VDC distortion analyzer indicates <5%
3-1e(4)(d) <u>2</u>		Oscilloscope trace and distortion same as above
COMMENTS:		

TELETYPEWRITER TESTS	PERIOD OF TEST		DATE (DAY/MONTH/YEAR)
	START _____	Z	()
DATA SHEET	STOP _____	Z	TEST ENGR SIGNATURE
	TT _____	WPM	_____
TCT-4 RECEIVER TESTS			
PARAGRAPH	MEASUREMENTS		CORRECT RESPONSE
3-1e(5)(a) <u>2</u>			-13±1 VDC between TP-2 (-) and TP-3 (+) Ammeter indicates selector magnet current of 10 ma
3-1e(5)(a) <u>4</u>			13±1 VDC between TP-2 (+) and TP-3 (-) Ammeter indicates selector magnet current of 10 ma
3-1e(5)(b)			Same as above
3-1e(5)(c) <u>1</u>	Rangefinder setting		
3-1e(5)(c) <u>4</u>	Zero bias range		Minimum of 72 pts of range at 60 WPM and 60 pts of range at 100 WPM
	Rangefinder setting		
3-1e(5)(d) <u>1</u>	Rangefinder setting 35% marking bias		
3-1e(5)(d) <u>2</u>	Rangefinder setting 35% spacing bias		
3-1e(5)(d) <u>3</u>	Bias tolerance (computed)		Bias tolerance ≥40% @ 60 WPM ≥35% @ 100 WPM

Figure 3-1. Data sheet for teletypewriter tests. (continued)

TELETYPEWRITER TESTS		PERIOD OF TEST: START <u> </u> Z STOP <u> </u> Z	DATE (DAY/MONTH/YEAR) (<u> </u>) TEST ENCR SIGNATURE <u> </u>
DATA SHEET			
TCT-5 FUNCTIONAL TESTS			
REFERENCE: TM 11-5815-244-35	PERFORMANCE STANDARD	COMMENTS	
Para 15a(6)	Set switches as indicated in para 15a (1) thru (5). Carriage returns automatically after 72d character is typed (76th on TT-118F/G). End-of-line indicator lights at the 66th character (70th on TT-118F/G). Printed and punched tape is sharp and correct.		
15a(7)	Test message is correct. Carriage return line feed operations are correct after manual operation.		
15a(8)	Perforator bell rings after FICS key and "S" (BELL) key is pressed.		
15b(2)	Insert tape in transmitter-distributor. Tape moves freely forward or backward with light hand pressure when STOP-START lever is in the FEED RETRACT position.		
15b(3)	Tape feeds steadily into the mechanism without binding when the STOP-START lever is in the START position.		

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Figure 3-1. Data sheet for teletypewriter tests. (continued)

TCT-5 FUNCTIONAL TESTS (continued)		
Reference: TM 11-5815-244-35	PERFORMANCE STANDARD	COMMENTS
Para 15b(4)	Tape ceases to feed into mechanism when STOP-START lever is moved to STOP position.	
15b(6)	Tape should stop when tight-tape lever is raised.	
15b(7)	Tape ceases to feed when tape cover latch is operated.	
15b(9)	Tape ceases to feed when end of tape feeds under the cover.	
15b(10)	Tape is smooth and flat; code and feed-holes should be sharp and free of distortion.	
15c(7)	Set switches as described in para 15c (1) thru (5). Tape feeds into transmitter-distributor mechanism.	
15c(8)	Alternate R and Y message is printed on page printer. Turn rangefinder dial on page printer to maximum and minimum positions between which good copy is received. Note readings. Position rangefinder dial at midpoint between the two indicated readings.	

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Figure 3-1. Data sheet for teletypewriter tests. (continued)

TCT-5 FUNCTIONAL TESTS (continued)		
Reference	PERFORMANCE STANDARD	COMMENTS
TM 11-5815-244-35		
Para 15c(10)	Position rangefinder on perforator as indicated in para 15c(8) above.	
15d	Automatic line feed and carriage return operate after the printing of the 72d (76th on TT-118) character on a line.	
15e(1)	Page copy of test message should be printed by the page printing mechanism, and punched tape copy should be made by perforator when STOP-START lever is moved to START position.	
15e(2)	Page copy should have proper carriage return and line feed. At the end of message, carriage returns and paper feeds. Paper should feed one and two lines when line feed lever is in the one or two position.	
15f(6)	Set switches as indicated in para 15f (1) thru (5). Page copy of test message should be printed by the page printing mechanism, and a printed and punched tape copy should be made by the perforator. Both copies should be accurate and clear. Perforator copy should be correctly punched.	

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Figure 3-1. Data sheet for teletypewriter tests. (continued)

TCT-5 FUNCTIONAL TESTS (continued)		
REFERENCE: TM 11-5815-244-35	PERFORMANCE STANDARD	COMMENTS
Para 15g(2)	Set switches as indicated in para 15g(1). Page printer bell should ring when FIGS and "S" (BELL) keys are depressed.	
15h(1)	Page printer motor should stop when FIGS and H (STOP) keys are depressed. On TT-118, motor stops when FIGS, BLANK and H keys are depressed.	
15i(1)	Platen should shift to lowercase after FIGS key is depressed, and LTRS button on left side of page printer dust cover is depressed.	
15i(2)	Carriage should return to the left side of page printer after positioning carriage to midpoint and depressing CAR RET button on right side of dust cover.	
15i(3)	Carriage should move toward the right-hand margin when the manual space button located behind the right side of the platen is depressed.	
15i(4)	Position switches as indicated in para 15f (1) thru (5). The perforator inking ribbon should move once for every two operations; the page printer inking ribbon should move with every operation.	

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Figure 3-1. Data sheet for teletypewriter tests. (continued)

TCT-5 FUNCTIONAL TESTS (continued)		
REFERENCE: TM 11-5815-244-35	PERFORMANCE STANDARD	COMMENTS
Para 15i(5)	The page printer margin signal bell should operate, and the end-of-line indicator lamp should light when the carriage is positioned to the 65th space and the space bar is depressed one time.	
15i(6)(c)	Set tabulator mechanism according to para 15i(6) (a) and (b). The indicator carriage should move to the right stopping at the first red tab set lever from the left when the space bar and REPEAT key are held down.	
15i(6)(d)	The carriage should stop at the second red tab set lever from the left and all others that were initially set.	
15i(6)(e)	Press the CAR RET key to cause the carriage to move to the left side of the page printer. Depress and hold the space bar and the REPEAT key. The carriage should move to the right side of the page printer without stopping after the tab locking lever is moved to the downward position.	

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Figure 3-1. Data sheet for teletypewriter tests. (continued)

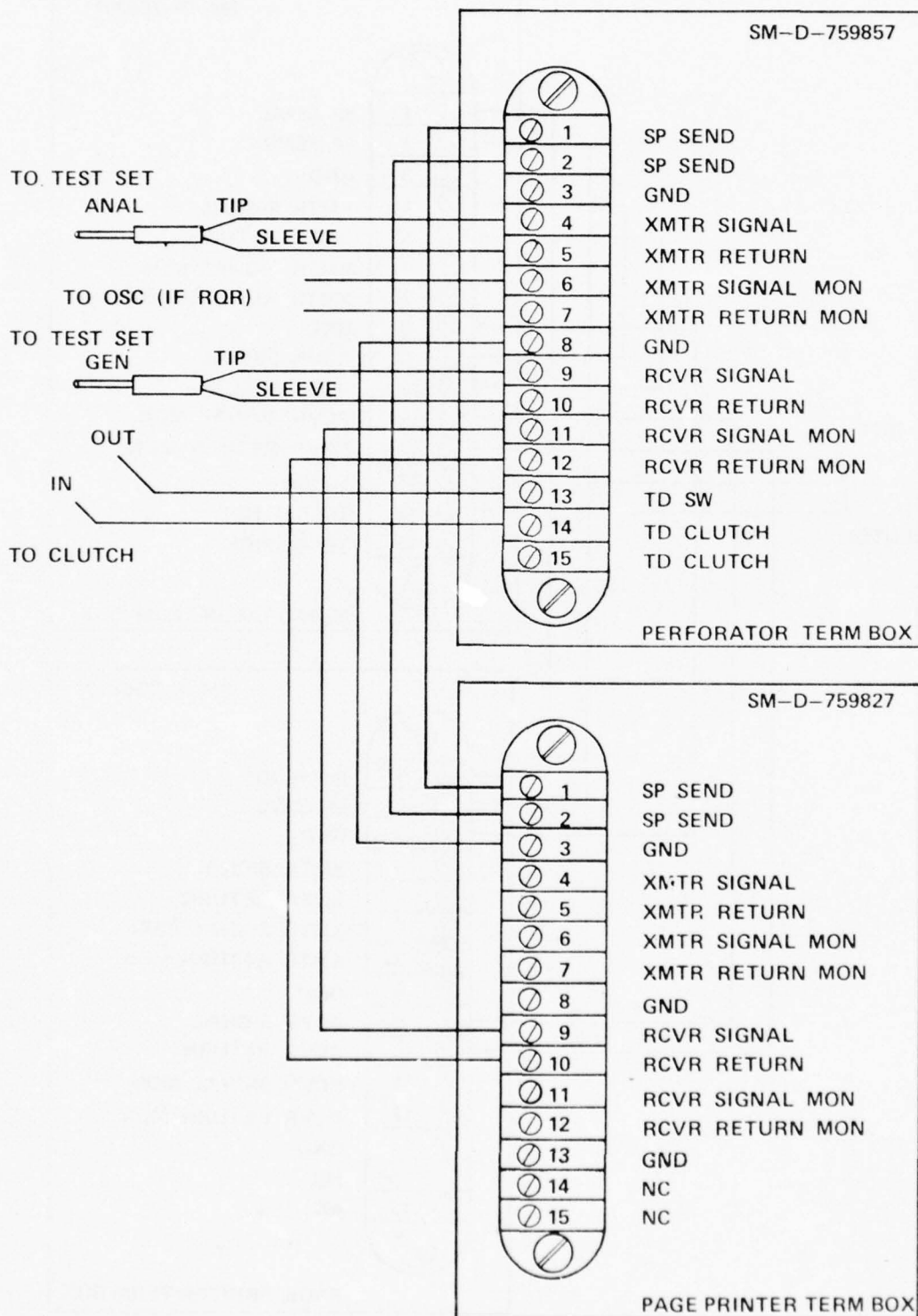


Figure 3-2. Performance test connections for Teletypewriter Set AN/FGC-25X modified to AN/FGC-161.

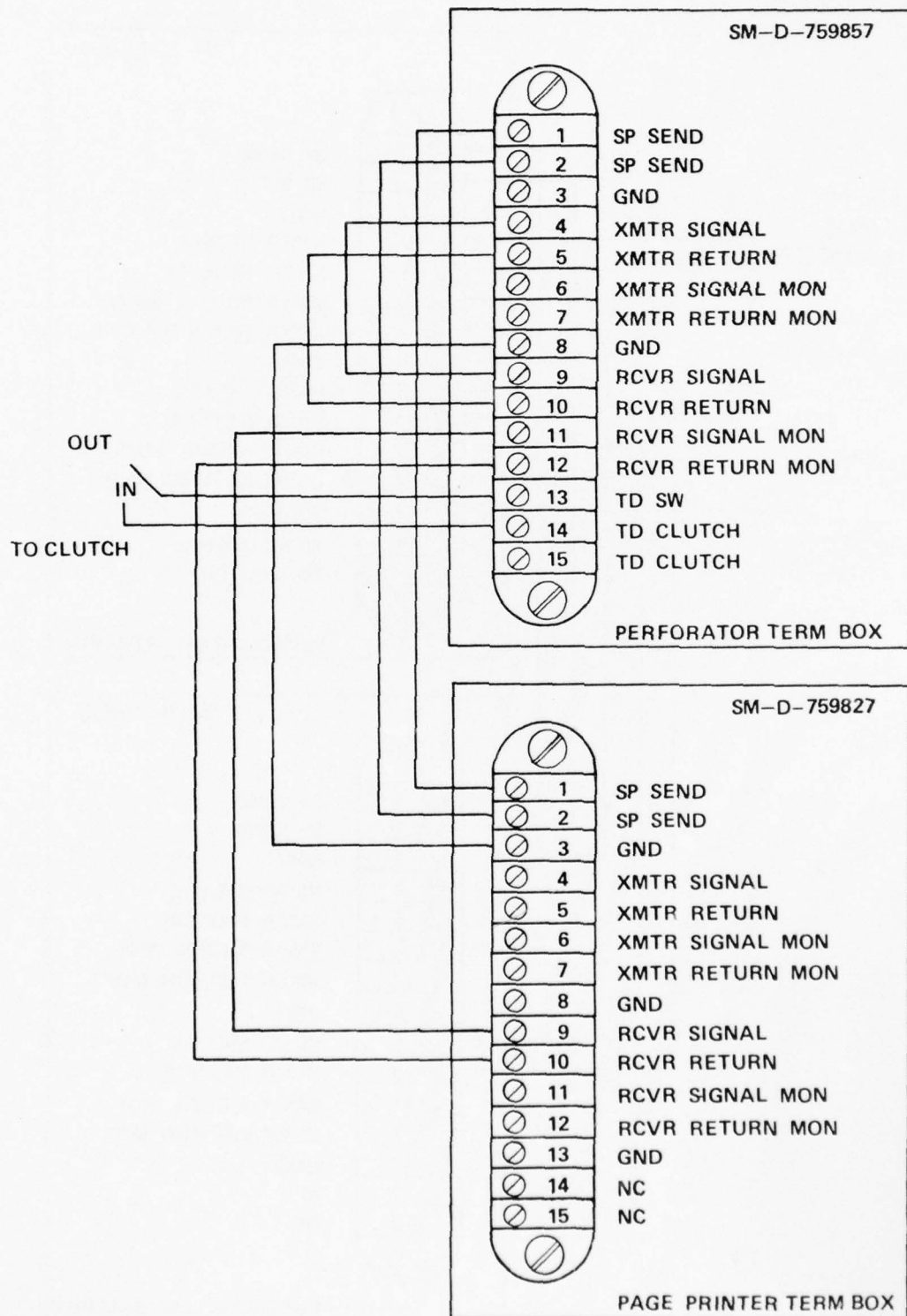


Figure 3-3. Functional test connections for Teletypewriter Set AN/FGC-25X modified to AN/FGC-161.

3-2. CRYPTO ANCILLARY UNIT (CAU).

a. General. The purpose of this test (TCT-6) is to evaluate the operation of the CAU.

b. Specifications. The CAU must perform as prescribed in TM 11-5895-543-35.

c. Required Tests.

(1) Power Supply Checks

(2) System Checks

d. Test Equipment Requirements. None.

e. Test Procedures.

(1) The CAU automatically synchronizes the two TSEC/KG-13's. The synchronizer only functions on full duplex communications links.

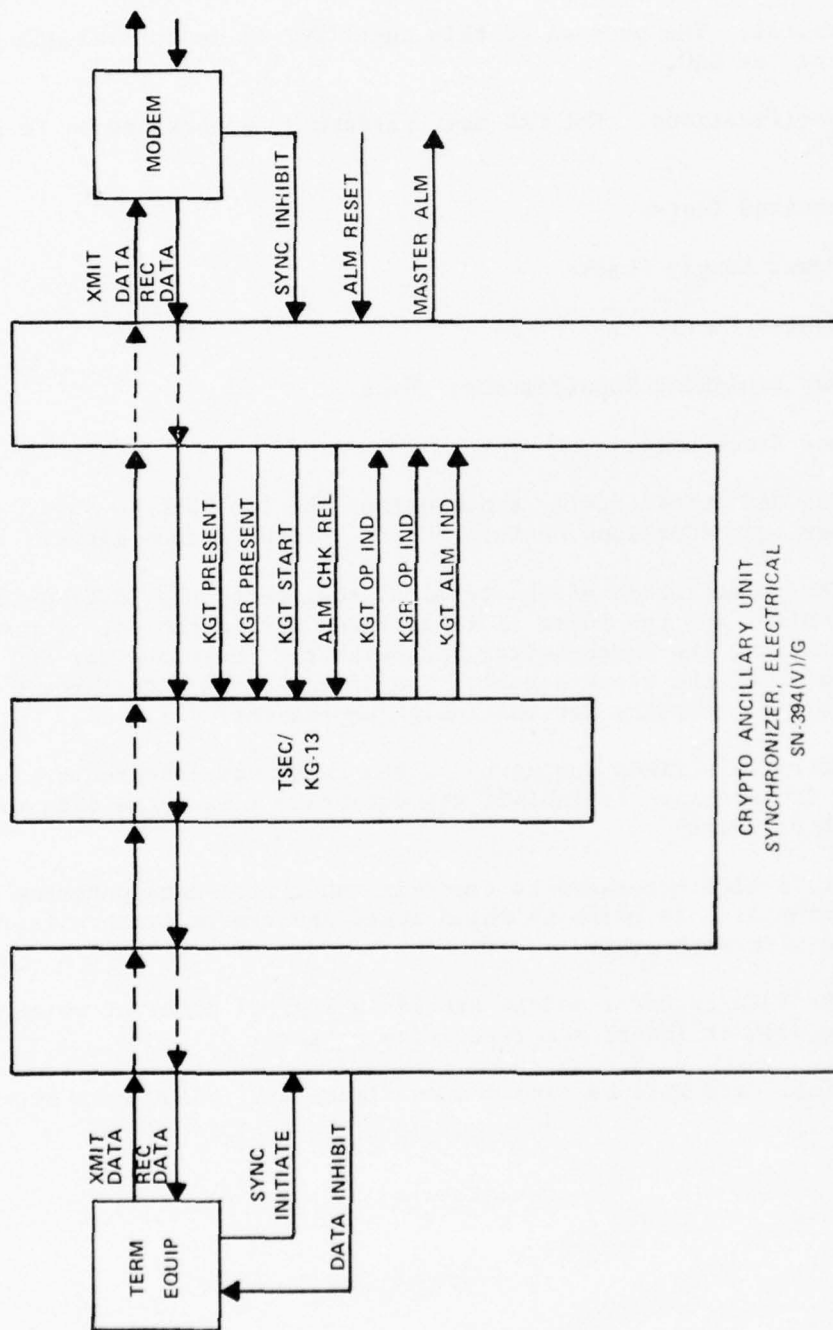
(2) The relationship of the terminal equipment, the TSEC/KG-13, the synchronizer and the modem is illustrated in figure 3-4. During normal operation, the synchronizer serves as the interface for RED and BLACK transfer of the clock signal. Transferring the data through the synchronizer is necessary for the following reasons:

(a) At certain times during the alarm check and synchronization cycles, it is necessary to inhibit the data flow (clamp the data to steady mark or space).

(b) It is also necessary to transmit repetitive data patterns since these patterns are the means by which local and remote synchronizers communicate with each other.

(c) The data transfer points provide a logical place at which to inhibit the data or insert the repetitive pattern.

(3) Final data will be recorded on figure 3-5; USACC Form 391-R (Test).



NOTES: KGT DENOTES XMIT KEY GEN.
KGR DENOTES REC KEY GEN.

Figure 3-4. Simplified terminal block diagram.

CAU SYNCHRONIZER TESTS (TCT-6) (CCR 702-1-3) DATA SHEET	PERIOD OF TEST START _____ Z STOP _____ Z	DATE (DAY/MONTH/YEAR) (_____) TEST ENGR SIGNATURE _____
REFERENCES: TM 11-5895-543-35 NAVSHIPS 0967-220-6021 TO 31W1-2G-222		
POWER SUPPLY CHECKS (para 4-6a, steps 1 thru 4)		
CORRECT RESPONSE	MEASUREMENTS	REMARKS
11.0 VDC		
-11.0 VDC		
6.0 VDC		
-6.0 VDC		
SYSTEM CHECKS (para 5-2)		
CORRECT RESPONSE	YES/NO	REMARKS
Synchronizes in manual mode.		
Performs an alarm check cycle followed by a sync cycle, then advances to monitor operation.		
Originates an alarm check cycle followed by a sync cycle, then advances to monitor operation.		
Pulls an alarm check cycle upon receiving a sync request from distant end.		
Originates an alarm check cycle followed by a sync cycle, then advances to monitor operation.		
Originates an alarm check cycle, makes three consecutive attempts to complete the cycle, then enters the master alarm condition.		

CAU SYSTEM CHECKS (continued)		
CORRECT RESPONSE	YES/NO	REMARKS
Originates a sync attempt three times, fails trans operate, then enters master alarm condition.		
Completes alarm check, three sync cycles, enters master alarm condition.		
Alarm check and sync cycle complete.		
Performs three op failures, then enters master alarm condition.		
COMMENTS:		

3-3. MODEMS MD-674 AND 700(P)/G.

a. General. The purpose of this test (TCT-7) is to insure that the modems are adjusted according to required standards prior to the terminal equipment operational tests.

b. Specifications.

(1) MD-674(P)/G.

(a) The modem must operate in accordance with the manufacturer's specifications.

(b) The modem must be strapped in accordance with manufacturer's specifications unless otherwise directed by DCA.

(c) The modem must meet criteria specified in paragraphs 2-3 through 2-7 of TM 11-5805-424-15.

NOTE: The crystal oven adjustment will not be performed if the modem is on-line prior to inspection.

(2) MD-700(P)/G.

(a) The modem must operate in accordance with the manufacturer's specifications.

(b) The modem must meet criteria specified in paragraph 2-5 of TM 11-5805-423-15.

c. Required Tests.

(1) MD-674(P)/G (TCT-7-1).

(a) Data Tests.

(b) Timing Tests.

(c) Alarm Tests.

(2) MD-700(P)/G (TCT-7-2).

(a) Functional Checkout.

(b) Detailed Tests.

1. Power Input.

2. Receiver Bias.

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3. Receiver Delay.
4. Input Level.
5. Output Wave Shape.
6. Output Voltage.
7. Receiver Input Impedance.
8. Level Attenuation.
9. Frequency Shift.
10. Transmitter Output Impedance.
11. Transmitter Loss-of-Transition Alarm.
12. Receiver Loss-of-Transition Alarm.
13. Transmitter Loss-of-Carrier Alarm.
14. Receiver Loss-of-Carrier Alarm.

d. Test Equipment Required.

(1) MD-674(P)/G.

(a) Multimeter.

(b) Oscilloscope.

(c) Attenuator Set.

(d) Telegraph Test Set.

(e) Thermometer.

(f) Electronic Counter.

(g) Transmission Measuring Set.

(2) MD-700(P)/G.

(a) Multimeter.

(b) Oscilloscope.

(c) Attenuator Set.

- (d) Telegraph Test Set.
- (e) Electronic Counter.
- (f) Transmission Measuring Set.
- (g) Decade Resistance Unit.
- (h) Variac.
- (i) Test adapter.

e. Test Procedures.

(1) MD-674(P)/G.

(a) Strapping checkout procedures will be as follows:

1. With the power turned off, extract modem printed circuit cards A-1 and A-12. (Ref: figure 1-5, TM 11-5805-424-15 for circuit card locations. Printed circuit card assembly terminal locations are shown in the same TM on pages 2-4 and 2-5.)

2. Follow the procedures as outlined in paragraphs 2-7a (1) through (6) and 2-7b (1), (3), (5) and (7) of the TM. Make all loopback connections for respective terminals at the BLACK patch.

3. At respective pins at the BLACK patch, connect the multimeter across terminals 12 and 13 of modem terminal board TB-2 and connect the frequency counter to terminals 15 and 16 of modem terminal board TB-2. Operate the input select switch to SPACE. Operate the input select switch to MARK and record the results. Remove the frequency counter.

4. With the modem still in the loopback configuration, connect the equipment as shown in figure 7-3 of TM 11-5805-424-15. Operate the input select switch to MARK and set the attenuator at zero db. Under these conditions, follow the procedures as indicated in paragraphs 7-6 through 7-8 of TM 11-5805-424-15, disregarding references to the data analysis center equipment (leave the input switch set as stated above).

(b) All data will be recorded on figure 3-6; USACC Forms 392-R and 392-1-R (Test).

(2) MD-700(P)/G.

(a) Perform functional checkout according to paragraph 4-13 of TM 11-5805-423-15. Data need not be recorded at this time.

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(b) Perform detailed tests according to paragraph 4-14 of TM 11-5805-423-14. Record all data on figure 3-6; USACC Forms 392-R and 392-1-R (Test).

NOTE: The power input test (para 4-14a of TM 11-5805-423-15) will be performed with the equipment connected to its normal voltage source. References to alternate sources will be ignored.

MODEMS MD-674 & 700(P)/G TESTS (TCT-7) DATA SHEET (CCR 702-1-3)	PERIOD OF TEST: START _____ Z STOP _____ Z	DATE (DAY/MONTH/YEAR) (_____) TEST ENGR SIGNATURE _____
REFERENCE: TM 11-5805-424-15 CHAPTER 7	PERFORMANCE STANDARD	COMMENTS
TCT-7-1	MD-674(P)/G TESTS	
DATA TESTS		
Para 7-6cla	Meter indicates between -20 and 3 dbm. Signal light lamps. Distortion less than 3.5%.	
7-6clc	Electronic counter should read designated frequency within ± 0.5 Hz.	
7-6cle	Electronic counter should not read any output frequency. Signal lamp lights. Meter reads maximum distortion.	
7-6c2a	Reversal patterns observed. Signal amplitude of 12 \pm 2 volts.	
7-6c2b	Distortion 8% maximum or 2% for MX-7379/G.	
7-6c2c	Distortion 8% maximum or 5% for MX-7379/G.	

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Figure 3-6. Data sheet for Modems MD-674 & 700(P)/G tests.

REFERENCE: TM 11-5805-424-15 CHAPTER 7	PERFORMANCE STANDARD	COMMENTS
TCT-7-1	MD-674(P)/G TESTS (continued)	
	DATA TESTS (continued)	
Para 7-6c3c	Distortion 3.5% maximum for all units (2% for MX-7379/G). Reversal pattern should be evident on the telegraph test set.	
7-6c3d	Distortion 3.5% maximum (2% for MX-7379/G).	
7-6c4a	Distortion same as in para 7-6c3d above.	
7-6c4c	Distortion 8% maximum (5% for MX-7379/G).	
7-6c4d	Distortion 10±29% for a period of 1 to 5 seconds and return to 3.5% maximum (2% for MX-7379/G). Meter changes from -15 volts to zero. Talk request lamp lights.	
7-6c4e	Distortion 3.5% maximum (2% for MX-7379/G). Meter changes from zero to -15 volts. Talk request lamp goes out.	

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Figure 3-6. Data sheet for Modems MD-674 & 700(P)/G tests. (continued)

REFERENCE:	PERFORMANCE STANDARD	COMMENTS
TM 11-5805-424-15 CHAPTER 7		
TCT-7-1	MD-674(P)/G TESTS (continued)	
TIMING TESTS		
Para 7-7cla	Electronic counter indicates frequency equal to baud rate of EUT $\pm 2\%$.	
7-7cle	Pattern in same frequency but not necessarily in sync.	
7-7clf	Pattern synchronous with inputs with A & B aligned.	
7-7clg	Bottom timing waveform moves into sync with top.	
7-7c2b	Electronic counter indicates frequency equal to baud rate of equipment. Scope observed same as in para 7-7clf above.	
ALARM TESTS		
7-8cla	Meter reads 3 to -20 dbm.	
7-8clb	Alarm lamp lights approximately 2 seconds after meter indicates -15 volts.	
7-8clc	Meter indicates 10 ± 1 dbm less than para 7-8cla above.	

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Figure 3-6. Data sheet for Modems MD-674 & 700(P)/G tests. (continued)

REFERENCE: TM 11-5805-424-15 CHAPTER 7	PERFORMANCE STANDARD	COMMENTS
TCT-7-1	MD-674(P)/G TESTS (continued)	
	ALARM TESTS (continued)	
Para 7-8cld	Meter indicates 5 ± 1 dbm less than para 7-8cla above.	
7-8c2a	Same as para 7-8cla above.	
7-8c2b	Alarm lamp lights approximately 2 seconds after meter indicates -15 volts. Meter indicates 20 dbm less than that recorded in para 7-8cla above. Telegraph test set indicates maximum distortion.	
7-8c2c	Meter indicates 10 ± 1 dbm less than para 7-8cla above. Telegraph test set indicates maximum distortion.	
7-8c3a	Scope indicates 6 ± 0.6 volts. Alarm lamp goes out.	
7-8c3b	Scope indicates zero-volt level. 2 seconds after level is reached, alarm lamp lights.	
7-8c3c	Scope should indicate 6 ± 0.6 volts. Alarm lamp goes out.	
7-8c4a	Scope indicates 6 ± 0.6 volts.	

USACC FORM 392-R (TEST)

1 MAR 77 Figure 3-6. Data sheet for Modems MD-674 & 700(P)/G tests. (continued)

REFERENCE: TM 11-5805-424-15 CHAPTER 7	PERFORMANCE STANDARD	COMMENTS
TCT-7-1	MD-674(P)/G TESTS (continued)	
	ALARM TESTS (continued)	
Para 7-8c4b	Scope indicates zero-volt level. 2 seconds after level is reached, alarm lamp lights.	
7-8c4c	Scope indicates 6 ± 0.6 volts. Alarm lamp goes out.	
7-8c5a	Scope indicates 6 ± 0.6 volts.	
7-8c5b	Remove plug. Scope indicates zero- volt level. 5 seconds after plug is removed, alarm lamp lights.	
7-8c5c	Reinsert plug. Scope indicates 6- volt level. Alarm lamp goes out.	
7-8c6a	Scope indicates 6 ± 0.6 volts.	
7-8c6b	Scope indicates zero-volt level. 5 seconds after wires are removed, alarm lamp lights.	
7-8c6c	Scope indicates 6 ± 0.6 volts. Alarm lamp goes out.	

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Figure 3-6. Data sheet for Modems MD-674 & 700(P)/G tests. (continued)

MODEMS MD-674 & 700(P)/G TESTS (TCT-7) DATA SHEET (CCR 702-1-3)		PERIOD OF TEST: START <u> Z </u> STOP <u> Z </u>	DATE (DAY/MONTH/YEAR) (<u> </u>) TEST ENCR SIGNATURE <u> </u>
REFERENCE: TM 11-5805-423-15 CHAPTER 4	PERFORMANCE STANDARD	COMMENTS	
TCT-7-2	MD-700(P)/G TESTS		
Para 4-14a(5)	TP2 -6.8±0.6 volts TP3 3.3±0.4 volts TP4 12 (13.6 max and 11.2 min) volts		
4-14a (6) & (7)	Same as above.		
4-14a (8) & (9)	Same as above.		
4-14b(3)	Both positive and negative portions of output wave should be 13.3 ms (each) nominal.		
4-14b(5)	An increase and decrease by 3 ms.		
4-14b(7)	Same as above.		
4-14c(5)	5-ms delay in transition.		
4-14d(2)	Peak jitter should not exceed 0.56 ms.		
4-14d(3)	Same as above.		

USACC FORM 392-1-R (TEST)

1 MAR 77 Figure 3-6. Data sheet for Modems MD-674 & 700(P)/G tests. (continued)

REFERENCE: TM 11-5805-423-15 CHAPTER 4	PERFORMANCE STANDARD	COMMENTS
TCT-7-2	MD-700(P)/G TESTS (continued)	
Para 4-14e(2)	Risetime and falltime should be between 0.55 and 0.89 ms within the 10- to 90-percent amplitude range.	
4-14f(3)	$\pm 6 \pm 1$ volts.	
4-14f(4)	Opposite polarity from above.	
4-14g(8)	Resistance as per chart on page 4-25 of TM.	
4-14g(9)	Same as above.	
4-14h(3)	Adjustable from -40 to 3 dbm.	
4-14h(5)	Should read greater than -2 dbm but less than 2 dbm.	
4-14i(3)	Specified frequency of ± 0.5 Hz.	
4-14i(5)	Same as above.	
4-14j(8)	Resistance as per chart on page 4-25 of TM.	
4-14j(9)	Same as above.	
4-14k(3)	Two transition and two carrier test points should indicate 6 volts.	
4-14k(5)	Zero-volt indication after 5 seconds.	

USACC FORM 392-1-R (TEST)

1 MAR 77 Figure 3-6. Data sheet for Modems MD-674 & 700(P)/G tests. (continued)

REFERENCE: TM 11-5805-423-15 CHAPTER 4	PERFORMANCE STANDARD	COMMENTS
TCT-7-2	MD-700(P)/G TESTS (continued)	
Para 4-14k(6)	Zero-volt indication after 5 seconds.	
4-14l(3)	Two transition and two carrier test points should indicate 6 volts.	
4-14l(5)	Same as para 4-14k(6) above.	
4-14l(6)	Same as para 4-14k(6) above.	
4-14m(8)	Common alarm status indicator energized within 2 seconds.	
4-14m(9)	Common alarm status indicator deenergized before -3 dbm level is reached.	
4-14m(11)	Same as para 4-14m(8) and (9) above.	
4-14n(12)	Same as para 4-14m(8) above.	
4-14n(13)	Common alarm status indicator deenergized.	
4-14n(16)	Same as para 4-14m(8) above.	
4-14n(17)	Same as para 4-14n(13) above.	

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Figure 3-6. Data sheet for Modems MD-674 & 700(P)/G tests. (continued)

3-4. COMSEC EQUIPMENT TESTS (TCT-8).

CAUTION

SPECIFIC INFORMATION REGARDING THE CHARACTERISTICS OF COMSEC EQUIPMENT IS CLASSIFIED. SEE APPROPRIATE KAM'S FOR MORE DEFINITIVE INFORMATION RELATIVE TO TEST PROCEDURES, SPECIFICATIONS AND REQUIRED TMDE.

a. TSEC KW-7/KWX-11. (TCT-8-1)

(1) General. The purpose of this test is to evaluate the in-house and operational test performance of the TSEC KW-7/KWX-11.

(2) Specifications. The equipment must perform in accordance with KAM-143B.

(3) Required Tests.

(a) Power Supply.

(b) Oscillator.

(c) Alarm.

(d) Input/Output Distortion.

(4). Test Equipment Required. In accordance with KAM-143B.

(5) Test Procedures. As prescribed in KAM-143B. Record data on figure 3-7; USACC Form 393-R (Test).

b. TSEC/KW-26. (TCT-8-2)

(1) General. The purpose of this test is to evaluate the in-house and operational test performance of the TSEC/KW-26.

(2) Specifications. The equipment must perform in accordance with KAM-235A.

(3) Required Tests.

(a) Power Supply.

(b) Master Oscillator.

(c) Driver/Core Marginal.

(d) Input/Output Distortion.

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(e) Alarm.

(4) Test Equipment Required. As stated in --

(a) KAM-234A - TSEC.

(b) KAM-235A - TSEC.

(c) TK 105.

(5) Test Procedures. As prescribed in KAM-235A. Record data on figure 3-7; USACC Form 393-1-R (Test).

c. Modem MD-674(P)/G and TSEC/KG-13. (TCT-8-3)

(1) General. The purpose of this test is to evaluate the Modem MD-674(P)/G (digital data) and TSEC/KG-13 combination for bit errors.

(2) Specifications. The equipment must perform in accordance with KAM-176C.

(3) Required Tests.

(a) TSEC/KG-13 Modem Bit Error Rate.

(b) TSEC/KG-13 Timing.

(4) Test Equipment Required. In accordance with KAM-176C.

(5) Test Procedures. As prescribed in KAM-176C. Record data on figure 3-7; USACC Form 393-2-R (Test).

COMSEC EQUIPMENT TESTS (TCT-8) (CCR 702-1-3) DATA SHEET		PERIOD OF TEST: START _____ Z STOP _____ Z	DATE (DAY/MONTH/YEAR) (_____)
TEST ENGR SIGNATURE _____			
TCT-8-1 TSEC KW-7/KWX-11 EVALUATION TEST			
POWER SUPPLY			
Test performed as specified in para 4408 and table 3-10, KAM-143B			
Specifications: $\pm 1\%$			
VOLTAGE	MAXIMUM LOAD	MEASUREMENTS	
6 VDC	280 ma		
-6 VDC	2 amps		
-18 VDC	37 ma		
-24 VDC	275 ma		
-53 VDC	175 ma		
COMMENTS:			
OSCILLATOR			
Test performed as specified in table 3-19, KAM-143B			
Specifications: IAW above reference			
COMMENTS:			
ALARMS			
Test performed as specified in table 3-14, KAM-143B			

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ALARMS (continued)			
COMMENTS:			
TRANSMITTER DISTORTION			
Input from tt: Measured	%	Min Rqr	1%
Output from line: Measured	%	Min Rqr	3%
COMMENTS:			

COMSEC EQUIPMENT TESTS (TCT-8) (CCR 702-1-3) DATA SHEET	PERIOD OF TEST: START _____ Z STOP _____ Z	DATE (DAY/MONTH/YEAR) (_____) TEST ENGR SIGNATURE _____				
TCT-8-2 TSEC/KW-26 EVALUATION TEST						
POWER SUPPLY						
Voltages measured and adjusted as specified: Transmitter: Para 3103d, KAM-234A Receiver: Para 3104d, KAM-234A						
COMMENTS:						
MASTER OSCILLATOR						
Xmtr and rcvr tested and/or adjusted IAW para 1301, KAM-235A						
COMMENTS:						
DRIVER/CORE MARGINAL CHECKS						
Test IAW para 1202 and para 1203, KAM-235A						
DRIVER/ CORE	GOOD	MARGINAL	DRIVER/ CORE	GOOD	MARGINAL	REMARKS
T-0			FC4			
T-1			FC5			
T-3			G01			
T-4			N 7			
T-6			CR4			
T-7			S 7			

DRIVER/CORE MARGINAL CHECKS (continued)						
DRIVER/ CORE	GOOD	MARGINAL	DRIVER/ CORE	GOOD	MARGINAL	REMARKS
T-9			SC3, 4			
T-10			TB/TA			
COMMENTS:						
TRANSMITTER DISTORTION						
Input from tt: Measured				%	Min Rqr	1%
Output to line: Measured				%	Min Rqr	3%
COMMENTS:						
ALARM CHECK						
IAW KAM-234A						
COMMENTS:						

COMSEC EQUIPMENT TESTS (TCT-8) (CCR 702-1-3) DATA SHEET		PERIOD OF TEST: START _____ Z STOP _____ Z	DATE (DAY/MONTH/YEAR) () TEST ENGR SIGNATURE _____
TCT-8-3 TSEC/KG-13 MODEM TEST			
KG-13 MODEM BIT ERROR RATE CHECK			
NAME/LOCATION OF D/E	% DISTORTION	REMARKS	REQUIRED
			0.5%
			0.5%
			0.5%
COMMENTS:			
TSEC/KG-13 TIMING TEST			
Xmit timing check	() Correct () Adjusted		Negative transi- tions of clock @ data midpoint
Rec timing check	() Correct () Adjusted		Timing pulse occurs @ data midpoint
COMMENTS:			

APPENDIX A. EQUIPMENT LIST

TMDE for Communications Center Test Teams	Military (JETDS) Nomenclature	PIL LIN Equivalent	Quantity
ELECTRONIC TEST EQUIPMENT			
Transmission Measuring Set	HP3550BH03/AN/USM423	V94455	2
Digital Multimeter	HP3470		
Digital Display	HP34750A	60064B	2
Plug-in Multimeter	HP34702A	60063N	2
Plug-in Battery Module ¹	HP34720A		1
Frequency Counter	HP5300A	09525N	1
Universal Counter Module	HP5302A	60066N	1
Oscilloscope	TEK475	N33151	1
Ammeter	WECO 749	05822N	1
Stroboscope	1531AB	60190N	1
Data Analyzer	DA-404	60137N	1
Pattern Generator	PG-404	60136N	1
Attenuator Set ¹	HP350D		1
Thermometer ¹	PH-660/U		1
Card Extractor ¹	4610164G2		1
DSTE Tool Kit ¹	11-8		1
DSTE Tool Kit ¹	11-9		1
DSTE Tool Kit ¹	11-10		1
Decade Resistance Unit ¹			1
Variac ¹			1
Test Adapter ¹	SM-D-374668		1

¹Equipment is non-PIL. Purchasing is through local channels.

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APPENDIX B

SAMPLE TEST REPORT

B-1. Volume I will contain introductory information, a summarization of performance and technical evaluation test results, a list of omitted and/or incomplete tests, conclusions, technical recommendations and tabulated data for the TCC technical evaluation data base.

B-2. Volume II will consist of completed data sheets for the performance evaluation conducted by the team and certified by the team chief.

B-3. Volume III will be those completed data sheets for the technical evaluation conducted by the team and certified by the team chief.

Sample TCC report.

B-0

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FINAL TEST REPORT
(RCS: CC-OPS-)

OPERATIONAL QUALITY ASSURANCE

TELECOMMUNICATIONS CENTER
PERFORMANCE AND TECHNICAL EVALUATIONS

SEOUL, KOREA

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VOLUME I

SCOPE OF EVALUATION

1.0 GENERAL. The telecommunications center (TCC) located at Seoul, Korea, was evaluated in accordance with the provisions of TM 11-490-2 and associated equipment maintenance manuals. The objectives of this evaluation were to --

a. Optimize, characterize, identify and/or repair all defective or marginal communications and electronics components that would impair or disrupt the quality and efficient handling of communications traffic.

b. Provide HQ USACC and subordinate commands with a technical data base which could be used as a management tool in establishing an effective TCC quality assurance program.

c. Inform the O&M commanders of equipment discrepancies or procedural methods inconsistent with established standards.

d. Develop and implement recommendations to improve cost effectiveness.

e. Investigate, develop and apply improved techniques in the areas of operations, logistics and maintenance.

f. Provide over-the-shoulder training for onsite personnel when the schedule permits. (Ref: CCR 702-1-3.)

1.1 PERIOD OF EVALUATION. 26-30 January 1976.

1.2 O&M AGENCY MAILING ADDRESS.

Commander
xxxth Brigade
APO San Francisco 90000

1.3 TECHNICAL EVALUATION DETACHMENT TEST TEAM COMPOSITION.

NAME	RANK	POSITION
SMITH, James	CW2	Team Chief
JONES, Harold	SSG	Team NCOIC
ARNOLD, John	SSG	Technician
*QUINN, Robert	SSG	Asst Op SGT

*Tasked to accompany team by the CDR 505th Sig Co.

Sample TCC report. (continued)

1.4 KEY PERSONNEL CONTACTED.

NAME	RANK	POSITION
RANGER, L.	LTC	CDR, 66th Sig Bn
COX, Mark	MAJ	C, P&O
JAMES, Jessie	DAC	Comm Engineer

2.0 SUMMARY OF TEST RESULTS.

2.1 PERFORMANCE EVALUATION CHECKLISTS. (See volume II.)

a. A direct access door is not available between the message center and the terminal operations section. This causes delay when situations occur which require close coordination between the message center and operations. Work order request #06-2-976-7618 was initiated during the evaluation to install an access door. Prior to the team's departure, the work request had been approved at post engineers level and the door is scheduled for installation in approximately 45 days. (See paragraph 1k.)

b. The air conditioning unit in use at the TCC does not have the capacity to effectively maintain the temperature below 75 to 77 degrees during the warm, humid months of July and August. The high temperature and humidity have caused data card deterioration, condensation on equipment surfaces and, at times, extremely uncomfortable working conditions for operator personnel. Work order request #702-1-22-7601 was submitted and approved prior to the team's arrival. This work order provides for the replacement of the present air conditioner/humidifier with one of a larger capacity. Since corrective action has been taken, no further comments are necessary. (See paragraph 1w.)

c. Deterioration of the data cards due to high humidity and temperature will be eliminated when the new air conditioner/humidifier unit is installed. (See paragraph 2a(1).)

d. Two "uncovered" waste containers were placed near the transmitting equipment. This is contrary to paragraph 8-2a of TM 11-490-2 which states "uncovered waste containers will not be placed near transmitting, receiving or supervisory positions or any desk where messages are placed." The possibility of losing messages is significantly reduced if appropriate corrective measures are taken immediately. (See paragraph 9a.)

e. The emergency destruction and evacuation plans have been developed; however, they were not posted or included in the mandatory periodic reading file. Making the plans a part of the reading file assures

Sample TCC report. (continued)

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widest dissemination of the material and affords the commander a readily available means of "getting the information to the troops" in a timely manner on a regular, controlled basis. The station chief posted and included the plans in the periodic reading file. (See paragraph 11m.)

f. One reproduction machine, model 3M, in the TCC did not have a warning label prohibiting reproduction of classified material. A machine on the traffic floor has been designated the central location for reproduction of classified material and all others are for unclassified reproduction only. The label was applied by operations personnel. (See paragraph 11z.)

g. The fire plan was not included in the mandatory periodic reading file. Comments the same as subparagraph e above. (See paragraph 12c(3).)

h. The required number of fire extinguishers were located in the TCC; however, one of these was a water type (H_2O). A carbon dioxide (CO_2) type extinguisher or a type approved by the local fire marshal for electrical fires should be used in lieu of the water type. Fire extinguishers should be placed as far apart as necessary to effectively extinguish a fire occurring in any area of the TCC (ref: AR 420-90). A carbon dioxide (CO_2) fire extinguisher will be obtained and used. The water type (H_2O) will be turned in. In addition, extinguishers should be checked monthly to ascertain conformance with local policies and manufacturer's standards. (See paragraph 12f.)

i. NO SMOKING signs were not posted in the teletype maintenance area where flammable materials are used to clean teletype machines. Signs were posted by the safety officer. (See paragraph 12h.)

j. Oily rags used by teletype maintenance personnel were found in the bottom of a wall locker. This presents a safety hazard and increases the possibility of fire. The NCOIC was informed, and the rags were removed. Personnel were instructed in the methods of storing, using and disposing of all types of cleaning materials. (See paragraph 12l.)

k. The safety board was recently installed and has not been painted. The station chief was informed that the board must be painted white with a 2-inch green border. Lettering to designate position of board items will be in black on the white background. (See paragraph 12n.)

l. Emergency telephone numbers (e.g., hospital, ambulance or doctor) were not posted to the safety board IAW paragraph 6c(10), CCR 385-1. Emergency numbers will be posted as soon as the safety board has been painted and remounted. (See paragraph 12o.)

m. Fifty 72G's are authorized and 36 were present for duty with 3 due in within 30 days. The shortage of trained personnel seriously hampers the efficient operation of the TCC. The OIC took the following steps to alleviate the problem:

Sample TCC report. (continued)

(1) Emergency requisitioning of 11 personnel, MOS 72G.

(2) Establishment of shifts on a 12-hour on, 12-hour off basis.

(3) Utilization of existing personnel in such a manner that the more experienced TCC specialists are assigned with the less experienced. This will enhance the learning process and insure maximum efficiency from the presently assigned work force. (See paragraph 16.)

n. No discrepancies were noted during or after the evaluation of the DSTE. The DSTE is operated in an AB configuration. (See USACC Form 385-R (Test), volume II.)

o. The DCT 9000 is not utilized at this facility.

p. No discrepancies were noted during or after the evaluation of the OCR. (See USACC Forms 388-R through 388-20-R (Test), volume II.)

q. ACK-1R and ACK-2T lamps were inoperative. The lamps were replaced by onsite maintenance personnel. When manually canceling a message, the CANCEL-XMTED lamp did not light. Maintenance personnel replaced defective logic card A2A9. (See USACC Form 389-R (Test), volume II.)

2.2 TECHNICAL EVALUATION. (Only those test results in which established standards were not met during or after the evaluation are summarized below. These results are keyed to test and paragraph numbers in chapter 3 of CCP 702-7. Corrective actions, if any, are also reported. Completed data sheets may be found in volume III.)

2.2.1 LOW LEVEL MODIFIED AN/FGC-25X (AN/FGC-161). Receiver Tests (TCT-4; para 3-1e(5)*) Sixty points of range could not be initially obtained on teletypewriter serial number (SN) 5042. Onsite maintenance personnel adjusted the receiving mechanism until the required 60 points of range were obtained (100-WPM operation). (See USACC Forms 351-R and 390-R (Test), volume III.)

2.2.2 CRYPTO ANCILLARY UNIT (CAU). (TCT-6; para 3-2) CAU (SN 502) failed to synchronize in the manual mode. The trouble was isolated to an improperly seated A-1 card in the black module. Trouble was corrected by onsite maintenance personnel. (See USACC Forms 351-R and 391-R (Test), volume III.)

2.2.3 MODEMS MD-674(P)/G and MD-700(P)/G. (TCT-7; para 3-3)

a. MD-674(P)/G. Test response listed under paragraph 7-6cla of TM 11-5805-424-15 was incorrect. Meter (ME-30A/U) indicated no output

*Paragraph references are keyed to chapter 3 of CCP 702-7.

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present at test points 15 and 16 of TB-2. Trouble was isolated to a defective Input Interface and Common Alarm Module Assembly A-12. Module was replaced by onsite maintenance personnel. (See USACC Forms 351-R, 392-R and 392-1-R (Test), volume III.)

b. MD-700(P)/G. This modem is not utilized at this TCC.

2.2.4 COMSEC EQUIPMENT TESTS. (TCT-11; para 3-4)

a. TSEC KW-7/KWX-11 (TCT-8-1). Serial number 320 had an initial reading of 7 VDC instead of 6 ± 0.6 VDC. The voltage was adjusted by onsite maintenance personnel to the correct value. Repair or replacement of components was not required. (See USACC Forms 351-R and 393-R (Test), volume III.)

b. TSEC/KW-26 (TCT-8-2). KWT-26C, SN 183 had a marginal E-AAL package in the T₀-T₁ slot 1A1A8. The package was replaced by onsite maintenance personnel. The remaining driver/core checks were within specifications. (See USACC Forms 351-R and 393-1-R (Test), volume III.)

c. TSEC/KG-13 (TCT-8-3). Transmit timing was checked and the negative transitions of the clock were occurring at the leading edge of the data instead of midpoint. The timing switch on the KG-13 transmit number 9 board was repositioned to the invert position, thereby causing the clock transitions to occur at the proper data point. (See USACC Forms 351-R and 393-2-R (Test), volume III.)

3.0 OMITTED AND/OR INCOMPLETE TESTS. None. (See USACC Form 383-R (Test).)

4.0 CONCLUSIONS.

a. The Seoul TCC utilized one DSTE (AB configured) and one mode V terminal operating at 100 WPM. The mode V terminal is operationally connected to the Taegu AUTODIN terminal and is used on an as-required basis. For example, when message overloads occur or the DSTE is not available.

b. The lack of qualified TCC personnel (MOS 72G) has caused some delay in message-handling times at peak operating periods; however, personnel are being utilized effectively and efficiently without serious problems arising. Steps have been taken to fill the existing vacancies and the TCC should be up to effective strength within 180 days.

c. Problem areas noted in paragraph 2.1 (extracted from the operational checklist, (USACC Form 385-R (Test), volume II) are being corrected and/or eliminated as quickly as possible. Deficiencies noted

Sample TCC report. (continued)

as being contrary to criteria do not, at this time, impede the orderly flow of traffic from originator to addressee. However, if conditions persist, some decrease in message-handling times will occur.

d. Supervisory operations personnel are qualified and adequate for the present workforce. The possibility of expanding the TCC should not warrant an increase in supervisory positions.

e. The present allocation of maintenance personnel (all MOS's) is adequate. Should the terminal expand, the present number of COMSEC maintenance personnel (MOS 32F and 32G) will not be sufficient to maintain the additional equipment required.

f. There were no other areas of significant importance during or after the evaluation.

5.0 TECHNICAL RECOMMENDATIONS. There were no major discrepancies noted during the technical evaluation. Minor problems encountered were noted on the data sheets (volume III) and examined fully in paragraph 2.2. The majority of the troubles encountered do not need further explanation.

6.0 DATA TABULATION. (See USACC Form 384-R (Test).)

Sample TCC report. (continued)

CCP 702-7

Table 1-1. Omitted and/or Incomplete Tests.
(CCR 702-1-3)

STATION	TEST DESCRIPTION	REMARKS
TCC SEOUCKOREA		

Sample TCC report. (continued)

Table 1-2. Tabulated Data for TCC Technical Evaluation Data Base
(CCR 702-1-3)

Station location. CAMP FUJI, KOREA
 Station name. SEOUL TCC, SEOUL, KOREA
 Station OIC CPT BROWN
 Station NCOIC MSG GREEN
 Station unit identification code (UIC)/
 site code (SC). WOGDAA-01
 Station AUTOVON number. 423-1125
 Parent organization CDR, 505TH SIG CO, APO
 SAN FRANCISCO 90000
 Parent organization AUTOVON number. 423-1234
 O&M command 66TH SIG BN, APO SAN
 FRANCISCO 90000
 O&M command AUTOVON number. 432-1432
 Major headquarters served by TCC. HQ 8TH US ARMY
 Major headquarters AUTOVON number 423-1112
 Station electrical message address. CDR TCC SEOUL KOREA
 //CCE-W-P//
 Type facility TELECOMMUNICATIONS
 CENTER (TCC)
 Routing indicator RUEGABB
 Command communications service
 designator (CCSD) UUBWR443
 Restoration priority. 1G

CCP 702-7

Through stations. *NONE*

Connected AUTODIN terminal. *TAEGU, KOREA*

Total customers served. *108*

Number of customers internal routing made . *23*

Number of customers internal routing
not made. *85*

Number of customers requiring
reproduction. *108*

Average number of copies reproduced per
message *4.8*

Number of remote stations *Ø*

Number of readdressed messages. *107*

Personnel manning *SEE PARA 16 & 17 OF
USACC FORM 385-R (TEST),
VOLUME II.*

Terminal equipment. *DSTE (AB CONFIGURATION)*

Baud rate *600*

Spare terminal equipment. *1 ea MODE V*

Baud rate *75*

Number and types of COMSEC equipment. . . . *2 ea TSEC/KG-15
2 ea TSEC/KW-26
2 ea TSEC/KW-7*

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Page 2 of 2 Pages

Sample TCC report. (continued)

VOLUME II
PERFORMANCE EVALUATION
OF

TELECOMMUNICATIONS CENTERS
(CCR 702-1-3)

Comments will be keyed to the specific paragraph and entered in the space provided in paragraph 18. Additional pages may be used, if required.

1. GENERAL INFORMATION.

a. Installation Name. Camp Fuji Korea

b. TCC Identification.

(1) TCC Name Seoul Korea

(2) US or Overseas Mailing Address CDR 505th SIGNAL
Co. APO SF 90000

(3) Electrical Message Address

CDRTCC SEOUL KOREA // COE-W-P//

(4) OIC Name & Rank JAMES BROWN CPT

AUTOVON 423-1125

(5) NCOIC Name & Rank MARK GREEN MSG

AUTOVON 423-1126

(6) Parent Org (Bn, Co, etc) 66th SIGNAL BN

APC SF 90001

AUTOVON 423-1521

c. AUTODIN Switching Center(s) on which Homed _____

TAEU, KOREAd. TCC Routing Indicator(s) RUEPFID

e. Is the TCC fully integrated and consolidated?
If not, provide reasons for noncompliance, status of consolidation/integration actions and date for completion (para 5L, AR 105-1; para 1-3 and 1-4, TM 11-490-2; para 5b(2), AR 105-17).

f. What type of services are available to users (para 2-4, TM 11-490-2)?

COMMON USER TT
COMMON USER DATA

g. What type of terminal configuration (DSTE AB, DCT 9000, mode V, etc.) is employed?

ONE DSTE AB CONFIGURATION
ONE MODE V (100 WPM-STANDBY)

(1) Does it meet current mission requirements? If not, explain.

(2) Does it provide for future expansion, if required? If not, explain.

YES	NO	NA
✓		
✓		
✓		

h. Is the layout of equipment conducive to efficient operation and message processing? If not explain.

i. Are procedures and titles standardized for this type of TCC facility (chap 6, TM 11-490-2)? If not, explain.

j. Do responsibilities for each TCC position conform with those listed in paragraphs 6-2 through 6-9, TM 11-490-2?

* k. When was last annual general inspection?
8 MAY 75 Were any problems encountered? If so, explain.

A DIRECT ACCESS DOOR IS NOT AVAILABLE BETWEEN THE MESSAGE CENTER AND THE TERMINAL OPERATIONS CENTER.

l. Are any local operational or management reports being prepared which duplicate any existing reports? If so explain.

m. Is there presently a functioning telecommunications control board established in the area (AR 105-10)?

(1) What command is responsible? EU5A G6

(2) Who is the president of the board? CPT JENNINGS G6

(3) Does the TCC send representatives to the board?

n. Is TM 11-490-2 being used as the operations SOP for the TCC (para 1-1 and 1-2)?

o. Are TM's 11-490-1 and -2 maintained as looseleaf publications (para 4b, AR 105-17)?

YES	NO	NA
✓		
✓		
✓		
✓		
	✓	
✓		
✓		
✓		

	YES	NO	NA
(1) Are TM's available for practical use?	✓		
(2) Are changes posted to TM's?			✓
(3) Are TCC personnel knowledgeable in submission procedures for recommended changes to TM's 11-490-1 and -2?	✓		
p. Have TM's been locally augmented (para 4c, AR 105-17 and para 1-2, TM 11-490-2)?		✓	
q. Are local augmentation procedures limited to unique conditions policy for limited exceptions and deviations IAW AR 105-17 and TM 11-490-2? If not, explain.			✓
r. Do local augmentation procedures cite the corresponding paragraph and chapter of the appropriate publications?			✓
s. Have copies of the local augmentation procedures been forwarded to HQ USACC (AR 105-17 and para 1-2, TM 11-490-2)?			✓
t. Are administration, personnel, logistics, maintenance, housekeeping and similar matters included in SOP's separate from TM 11-490-2?	✓		
u. Is the TCC on pinpoint distribution?	✓		
v. Is there a forms or publications distribution problem? If so, explain.		✓	
* w. Is station power and air conditioning adequate to handle the equipment load? If not, explain. <i>THE AIR CONDITIONING UNIT DOES NOT HAVE THE CAPACITY TO EFFECTIVELY MAINTAIN THE REQUIRED TEMPERATURE.</i>		✓	

- x. Is there adequate backup power?
2. DATA CARD CARE.
- a. Are storage and handling procedures for data cards IAW TM 11-490-2 as follows:
- * (1) Environment (para 5-1a)?
- (2) Conditioning procedures (para 5-1b)?
- (3) Storage conditions (para 5-1c)?
- (4) Use (para 5-1d)?
- b. Are correct types of data cards procured?
3. TAPE LIBRARY/LOGS
- a. Are storage and handling procedures for magnetic tapes IAW TM 11-490-2 as follows:
- (1) Adequate space and shelving for tapes?
- (2) Records/logs for each reel (para 5-2b(1))?
- (3) Up-to-date records/logs?
- b. Do the records show --
- (1) Installation identification (para 5-2b(1)(a))?
- (2) Reel or pack number (para 5-2b(1)(b))?
- (3) Content (journal/history year, etc.) (para 5-2b(2)(c))?
- (4) Recording density/capacity (para 5-2b(1)(d))?
- (5) Security classification (para 5-2b(1)(e))?
- (6) Usage (including cleaning) (para 5-2b(1)(f))?
- (7) Disposition (para 5-2b(1)(g))?
- (8) Degaussing (para 5-2b(1)(h))?

YES	NO	NA
✓		
	✓	
✓		
✓		
✓		
✓		
		✓
		✓
		✓
		✓
		✓
		✓
		✓
		✓
		✓
		✓
		✓

AD-A039 712

ARMY COMMUNICATIONS COMMAND FORT HUACHUCA ARIZ
TELECOMMUNICATIONS CENTER PERFORMANCE AND TECHNICAL EVALUATIONS--ETC(U)
MAR 77

F/G 17/2

UNCLASSIFIED

ACC-CCP-702-7

NL

3 OF 3

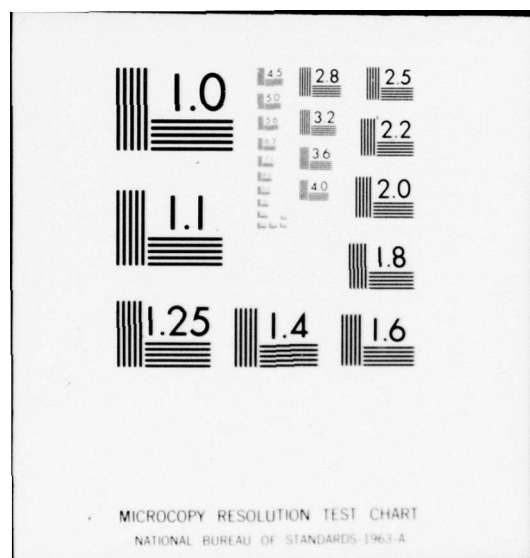
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DATE
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(9) Purge dates or retention periods (para 5-2b(1)(i))?

c. Does inventory accountability show --

(1) On-hand items in library (para 5-2b(3)(a))?

(2) Responsiveness/adequacy of tape supply sources?

(3) When replacements are due in (para 5-2b(3)(b))?

(4) Whether old classified tapes are (para 5-2c) --

(a) Stored properly?

(b) Marked properly?

(c) Awaiting disposition; i.e., destruction, transfer, etc. (para 5-2b(3)(f))?

d. Are magnetic tape reel acquisition, inspection, cleaning, recertification, degaussing equipment procedures or schedules and shipping procedures IAW paragraph 5-3, TM 11-490-2? If not, explain.

e. Is new/excess magnetic tape received from Defense ADPE Reutilization Office channels inspected for edge damage, scratches, distortion and tape errors prior to use?

f. Are unsatisfactory magnetic tapes being received from Defense ADPE Reutilization Office channels? If so, explain.

g. Does the TCC have tape cleaning/recertification equipment to detect and correct magnetic tape errors cited in paragraph 5-3, TM 11-490-2 and AR 18-7?

h. Are approved degaussers available (para 5-4, TM 11-490-2)?

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YES	NO	NA
		✓
		✓
		✓
		✓
		✓
		✓
		✓
		✓
		✓
		✓

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- i. If not, are they requisitioned?
- j. Are only new or degaussed and declassified magnetic tapes used within the TCC (para 5-4, TM 11-490-2)? Briefly explain how this was determined.
- k. Are reels promptly returned by data processing installation originators subsequent to completion of service message actions?
- l. Is there adequate fire prevention (para 5-2b, TM 11-490-2 and AR 420-90)? If not, explain.
4. M&R FUNCTIONS AND OPERATING PROCEDURES.
- a. Are M&R section responsibilities clearly defined (para 6-9a, TM 11-490-2)?
- b. Do M&R section personnel perform the required duties as listed in paragraph 6-9a, TM 11-490-2?
- c. Are message processing discrepancies noted by M&R section personnel published for supervisor and operator review?
- d. Is M&R section adequately staffed and supervised according to mission requirements and present workload? If not, explain.
- e. Is 100-percent, after-transmission check made on all originated messages to determine procedural and operator discrepancies? If not, what percentage is being checked? NA %

YES	NO	NA
		✓
		✓
		✓
	✓	
✓		
✓		
✓		
✓		

**AFTER-TRANSMISSION CHECK NOT MADE
DUE TO LACK OF HARD COPY FROM THE OLC.**

Page 7 of 34 Pages

5. RECORDS.

a. Are station logs reviewed, stored, retained and destroyed as follows (AR 340-18-11):

(1) Logs, reports and similar files -- 1 year?

(2) Message files -- 1 year or less?

(3) Other files -- 30 days?

b. Are there any deviations in TCC record and file maintenance? If so state authority. NA

c. Are all TCC logs/records and standard DD/DA or other forms prescribed by TM 11-490-2 for TCC operations on hand?

d. Are log/record/form entries made IAW TM instructions? If not, state authority which directs deviation from established procedures? NA

6. MESSAGE PROCESSING AND HANDLING.

a. Are message processing steps fully in conformance with paragraph 6-10, TM 11-490-2? If not, explain.

b. Are messages received for transmission on a reasonably even flow throughout the business day (AR 105-31)? If not, explain.

YES	NO	NA
✓		
✓		
✓		
	✓	
✓		
✓		
✓		
✓		

c. What percentage of traffic originates between 1530 and 1700 hours (para 1-4d, AR 105-31)? 14 %

d. Have any subscribers complained concerning TCC delivery of messages to supported headquarters, commands, activities or operations centers? How many messages were delayed? NA Explain cause of delay.

e. Are reproduction facilities available (para 6-10a(2)(c), TM 11-490-2)? State type and capacity.

f. Does a local augmentation procedure cover interruptions to leased facilities?

g. Are the procedures outlined in TM 11-490-2 being used for the following types of messages:

(1) TOP SECRET (para 7-3)?

(2) SECRET (para 7-6)?

(3) Non-SPECAT codeword/nickname (para 7-7)?

(4) PERSONAL FOR (para 7-8)?

(5) LIMITED DISTRIBUTION (LIMDIS) (para 7-9)?

(6) General (para 7-10)?

(7) Staff service (para 7-11)?

(8) OIC (para 7-12)?

(9) International and Allied Treaty Organization (para 7-13)?

(10) Book (para 7-14)?

h. Are service messages processed IAW paragraph 7-15, TM 11-490-2?

(1) Is the service subsection area convenient to operations?

YES	NO	NA
	✓	
✓		
		✓
✓		
✓		
✓		
✓		
✓		
✓		
✓		
✓		
✓		
✓		
✓		
✓		
✓		

(2) How many services are originated per day?
APPROXIMATELY 10

(3) What is the reason for the majority of the services? LACK OF COORDINATION BETWEEN THE TCC AND THE DPI.

(4) Do service backlogs occur? If so, explain.

(5) Are service messages which require a reply placed in a suspense file (para 7-15b(2))?

(6) Are followup actions initiated on service messages, when required (para 7-15b(2))?

i. Are misrouted messages processed IAW paragraph 7-17, TM 11-490-2?

j. Are missent messages processed IAW paragraph 7-18, TM 11-490-2?

k. Are messages readdressed by other than the action/PI office (para 7-19b, TM 11-490-2)?

l. Does a review of 10 to 20 randomly selected, readdressed messages (including book and address, when available) indicate discrepancies in processing procedures (para 7-19 c thru f, TM 11-490-2)? If so, explain.

m. Are requests for retransmission received from originators on DA Form 2655 (para 7-20a, TM 11-490-2)?

n. Are operator and supervisory personnel correctly using suspected duplicate (SUSDUPE) narrative, punched card and magnetic tape message processing procedures (para 7-21 a and b, TM 11-490-2)?

YES	NO	NA
	✓	
✓		
✓		
✓		
✓		
	✓	
	✓	
✓		
✓		

o. Are operator and supervisory personnel correctly using unmarked duplicate narrative, punched card and magnetic tape message processing procedures (para 7-21c, TM 11-490-2)?

p. Are procedures for message correction being performed IAW paragraph 7-22b, TM 11-490-2?

q. Are messages released subject to correction when warranted (para 7-22b(4) (a) and (b), TM 11-490-2)?

r. Are messages delivered direct to action offices rather than to a distribution center, mailroom, staff message center or similar entity? If not fully integrated/consolidated, briefly describe distribution method.

s. Do local command directives provide specific guidance and instructions for notification and delivery of messages concerning death or serious illness IAW AR 600-10?

t. Does the TCC comply with straggler message processing procedures (para 7-24, TM 11-490-2)?

u. Are immediate delivery required (IMMDELREQ) message processing procedures being followed by operator and supervisory personnel IAW paragraph 7-25, TM 11-490-2?

v. Does the TCC review and coordinate with the originator of recurring multiple address messages to ascertain whether an address indicator group (AIG) is warranted (para 7-26, TM 11-490-2)?

w. Are AIG files established (para 7-26, TM 11-490-2 and ACP 100, US Suppl-1())?

x. Are modification/recapitulation procedures performed IAW paragraph 7-26c(2), TM 11-490-2 and ACP 100, US Suppl-1())?

YES	NO	NA
✓		
✓		
✓		
✓		
✓		
✓		
✓		
✓		
✓		
✓		

y. Have local routing guide correction procedures been established IAW paragraph 7-26c(4), TM 11-490-2? Briefly describe method for updating.

z. Are processing and notification procedures for data pattern messages exceeding 10,000 line blocks in conformance with paragraph 7-28, TM 11-490-2?

7. SPECIAL MESSAGE HANDLING.

a. Are there any discrepancies in processing high precedence messages (para 7-2, TM 11-490-2)? If so, explain.

b. Are State Department messages processed IAW paragraph 7-5, TM 11-490-2?

c. Are local subscriber instructions established for command notification and delivery of EAM, attack and other emergency warning messages (para 7-2d, TM 11-490-2)?

8. TRAINING.

a. Has a comprehensive formal and OJT program been established (para 8-7, TM 11-490-2)?

b. Are individual training records documented IAW USACC Supplement 1 to AR 350-1?

c. Are operating personnel cross trained into more than one functional area of the TCC?

d. Does the local training program include responsibilities and procedures for insuring the privacy of messages (para 8-18, TM 11-490-2)?

e. Are maintenance personnel formally trained?

YES	NO	NA
✓		
✓		
	✓	
✓		
✓		
✓		
✓		
✓		
✓		
✓		

9. SUPPLEMENTARY OPERATING PROCEDURES.

- * a. Are uncovered trash receptacles located near operating/clerical positions (para 8-2a, TM 11-490-2)?
- b. Is the station properly policed to avoid lost message hazards (para 8-2b, TM 11-490-2)?
- c. Are covered waste containers of moderate size placed where needed (para 8-2c, TM 11-490-2)?
- d. Are requests for change of action/PI, added distribution and additional copies prepared on DA Form 2655 for all narrative messages (para 8-9, TM 11-490-2)?
- e. Is the TCC complying with MINIMIZE message processing procedures (para 8-11, TM 11-490-2)?
- f. Are policies and procedures for providing temporary message service to VIP's MI(CID) agents and other authorized users complied with (para 8-13, TM 11-490-2)?
- g. Is such service provided?
- h. Is interpretation of data pattern messages limited to interpretation of header, CIC, RI and text header only (para 8-19, TM 11-490-2)?
- i. Are DA Form 4019-R entries used for recording information for tracer action requests (para 8-21, TM 11-490-2)?
- j. Does a review of 5 to 10 requests for tracer action indicate any inordinate delay in the correct handling of messages by TCC personnel (para 8-21, TM 11-490-2)? If so, explain.
- k. Have high precedence alternate delivery procedures been established for those TCC's operating on a part-time basis (para 8-23b(1)(a), TM 11-490-2)?

YES	NO	NA
✓		
✓		
✓		
✓		
✓		
✓		
✓		
✓		
	✓	
		✓

l. If alternate delivery has not been established, has the ASC been provided with the name and telephone number of a TCC representative for 24-hour contact (para 8-23b(1)(c), TM 11-490-2)?

m. Are closing and opening notices provided the ASC (para 8-23d, TM 11-490-2)?

n. Is protection provided the TCC during nonoperating hours against compromise, damage, theft or fire (para 8-23b(1)(b), TM 11-490-2)?

10. MAINTENANCE.

a. When was last annual maintenance inspection performed? 5 AUG 75 Were any problems encountered? If so, explain.

b. How many HAZCON's have been reported due to lack of spare parts and equipment outages during the last 60 days? NONE

c. Does a HAZCON currently exist at the station? If so, explain.

d. Are authorized maintenance personnel assigned? If not, explain.

e. Are there any particular maintenance problems being encountered? If so, explain.

YES	NO	NA
		✓
		✓
		✓
	✓	
	✓	
	✓	

f. Are there any outstanding maintenance supply problems? If so, explain.

g. Are required tools --

(1) On hand IAW applicable TOE/TDA?

(2) Authorized IAW applicable TOE/TDA?

h. What action has been taken to obtain the necessary tools?

i. Are excess/unauthorized tools on hand? If so, explain.

j. Is required test equipment --

(1) On hand IAW applicable TOE/TDA?

(2) Authorized IAW applicable TOE/TDA?

k. What action has been taken to obtain the necessary test equipment?

l. Is excess/unauthorized test equipment on hand? If so, explain.

m. Are required spare parts --

(1) On hand IAW applicable PLL?

YES	NO	NA
	✓	
✓		
✓		
	✓	
✓		
	✓	
✓		

	YES	NO	NA
(2) Authorized IAW applicable PLL?	✓		
n. What action has been taken to obtain the necessary spare parts?			
o. Are excess/unauthorized spare parts on hand? If so, explain.		✓	
p. Are systems/equipment down for extended periods of time for --			
(1) Repair parts?		✓	
(2) Maintenance at AMSF?		✓	
(3) Shortage and/or repair of TMDE?		✓	
q. Is contractor-owned equipment utilized onsite?		✓	
(1) If so, who has maintenance responsibility?			
(2) When troubles are reported to the company representative, what is the average response time from time-of-contact to time-of-arrival? _____			
(3) Is this response time IAW established contract requirements?			✓
(4) When contract representative arrives onsite, is the equipment restoral time IAW contract requirements?			✓
(5) If not, what action has local command taken to insure adherence to contract requirements?			
r. Are DD Forms 1435 and DA Forms 750 available and verified for personnel performing maintenance on COMSEC equipment?	✓		

s. Is routine maintenance being performed on a scheduled basis IAW established procedures? If not, explain.

t. Is software support being provided IAW CCR 105-7? State name and location of organization that provides this support. USACEEIA - PAC
If not, explain.

11. SECURITY

a. When was the last COMSEC inspection performed by INSCOM? 2 FEB 75 TEMPEST inspection? 3 FEB 75
TEMPEST test? 4 FEB 75

b. If discrepancies were noted, were they resolved within TCC assets and/or capabilities?

c. Has a TOP SECRET control officer (TSCO) and an alternate been appointed in writing (para 2-33, AR 380-5)? If not, explain.

d. Has a security manager been appointed in writing (para 1-4e, AR 380-5 and USACC Suppl 1 to AR 380-5)?

e. Is all waste generated in the TCC treated as classified waste (para 8-5, TM 11-490-2 and AR 380-5 w/USACC Suppl 1)? If not, explain.

YES	NO	NA
✓		
✓		
		✓
✓		
✓		
✓		

f. Is all waste requiring special handling; i.e., TOP SECRET, SPECAT placed in TOP SECRET burn bags in the TSCO safe or TOP SECRET controlled area (para 7-3a(5), TM 11-490-2)? If not, explain.

g. Are burn bags containing special handling classified waste marked IAW paragraph 7-3a(5), TM 11-490-2? If not, explain.

h. Is all other classified waste generated in the TCC placed in properly marked burn bags (para 7-3a(5), TM 11-490-2)? If not, explain.

i. Is classified waste disposed of ASAP after it has served its purpose (para 9-103, DOD 5200.1-R)? If not, explain.

j. Is classified waste disposed of by (para 9-101, DOD 5200.1-R) --

(1) Burning?

(2) Melting or chemical decomposition?

(3) Pulping?

(4) Pulverizing?

(5) Shredding?

(6) Other (explain)?

YES	NO	NA
✓		
✓		
✓		
✓		
✓		
✓		
		✓
		✓
		✓
✓		
		✓

k. Is the TCC experiencing any problems of such a nature that precludes destruction IAW subparagraphs e through j above? If so, explain.

l. Has the TCC prepared an emergency destruction and evacuation plan (AR 380-40 and para 8-4c and 9-4e, TM 11-490-2)? If not, explain.

* m. Is the plan posted and included in the required periodic reading file?

n. Have alert measures been established IAW paragraph 8-6, TM 11-490-2?

o. Are alert measures being exercised IAW paragraph 8-6, TM 11-490-2?

p. Does the TCC have contingency circuits/equipment? If so, when was it last tested? 20 JAN 76

q. Is the TCC (overseas only) employing incendiary devices? If so, explain.

INCENDIARY AND EXPLOSIVE DEVICES ARE AVAILABLE IN THE EVENT DESTRUCTION ORDERS ARE RECEIVED.

r. Does the TCC incendiary storage area (AR 190-11; AR 190-13 and para 8-4c, TM 11-490-2) --

(1) Have or require a waiver for facilities which do not meet the quantity-distance criteria IAW AR 385-64? Explain.

YES	NO	NA
	✓	
✓		
	✓	
✓		
✓		
✓		
✓		
	✓	

(2) Have replacement schedules set up with the assigned logistics activity to insure devices do not reach obsolescence prior to expiration dates? If not, explain.

(3) Have periodic schedules for ascertaining adequacy of locking devices, lightning protection, grounding, ventilation and magazine marking (AR 190-11)? If not, explain.

(4) Have inspections to confirm that noncombinable chemical class composition devices are not stored together (AR 190-11)?

s. Are RED/BLACK areas, circuits, power and equipment clearly designated (para 9-7, TM 11-490-2)? If not, explain.

t. When was the TCC and the associated control zone last inspected for clandestine monitor and intercept devices (AR 530-4 and para 23 b and c, TB 530-1)?

4 FEB 75

(1) Were discrepancies noted?

(2) Do any remain?

(3) Were the discrepancies noted above resolved within TCC assets and/or capabilities?

u. Are telephones installed in the classified message processing area (para 4-5d, AR 380-40)?

v. Are they installed IAW MIL-HDBK 232 (para 4-5d(1), AR 380-40)? If not, explain.

YES	NO	NA
✓		
✓		
✓		
✓		
	✓	
		✓
		✓
✓		
✓		

w. Are classified documents being reproduced at designated control locations (para 7-209, DOD 5200.1-R; para 2-30, AR 380-5 and para 2-30, USACC Suppl 1 to AR 380-5)?

x. Has the commander designated officials by position title who are authorized to approve the reproduction of TOP SECRET and SECRET information (para 2-30, USACC Suppl 1 to AR 380-5)?

y. Are reproductions of accountable documents brought under immediate written control (para 7-209, DOD 5200.1-R; para 2-30, AR 380-5 and para 2-30, USACC Suppl 1 to AR 380-5)?

* z. Are warning notices posted on unauthorized machines prohibiting the reproduction of classified material (para 7-209, DOD 5200.1-R)?

aa. Are there any problems in obtaining security clearances for TCC personnel? Average time 60 DAYS
If so, explain.

ab. Is TCC access controlled (para 9-4a, TM 11-490-2)?

ac. Have procedures for physical compromise been established IAW paragraph 9-4b, TM 11-490-2?

ad. Have physical security safeguards been established IAW paragraph 9-4c, TM 11-490-2?

ae. Have provisions been made to isolate transfer circuit terminations from US circuit terminations (para 9-4d, TM 11-490-2)?

af. Are off-line procedures IAW paragraph 9-8e, TM 11-490-2? If not, explain.

YES	NO	NA
✓		
✓		
✓		
	✓	
	✓	
✓		
✓		
✓		
		✓
✓		

ag. Do classified magnetic tape reels have proper classification markings (para 9-10, TM 11-490-2)?

ah. Are security precautions observed by TCC personnel for the safeguarding, destruction, access and shipping of magnetic core memories and USACC letters concerning the declassification programs (routines) associated with each device (para 5-5 and 9-11, TM 11-490-2)? How are declassification programs safeguarded?

12. SAFETY.

a. Has a safety officer been appointed?

b. When was the last facility survey performed by the host command or higher headquarters? 4 NOV 75

(1) Were safety hazards noted? If so, explain.

NO SAFETY BOARD

(2) What actions were taken to eliminate the hazards?

**A SAFETY BOARD HAS BEEN
INSTALLED.**

(3) Do any of the above-mentioned hazards still exist? If so, explain.

(4) Are they resolvable within TCC assets and/or capabilities? If not, explain.

c. Has a fire plan been --

(1) Developed?

(2) Posted?

* (3) Included in the required periodic reading file?

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YES	NO	NA
		✓
		✓
✓		
✓		
	✓	
		✓
✓		
✓		
	✓	

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Sample TCC report. (continued)

d. Are fire evacuation exercises performed on a scheduled basis IAW the fire plan? If not, explain.

Date of last exercise performed. 1 NOV 75

e. Is a smoke detection/alarm system installed?

* f. Are proper types and quantities of fire extinguishers installed in all rooms that contain communications equipment or flammable materials (para 3h, CCR 385-1)? If not, explain.

ONE WATER TYPE (H₂O) PRESENTLY IN USE.
SHOULD HAVE CO₂, OR OTHER APPROVED TYPE
FOR USE ON ELECTRICAL FIRES.

g. Are the fire extinguishers inspected monthly?

* h. Are NO SMOKING signs posted in all areas containing flammable materials (para 3g, CCR 385-1)?

i. Are approved cleaning solvents used? If not, explain.

j. Are toxic cleaning solvents used only in well-ventilated areas? If not, explain.

k. Are solvents stored in approved safety containers?

* l. Are oily rags stored in tightly closed metal containers and disposed of daily?

m. Has the safety officer authorized the installation of a safety board?

* n. Is the safety board painted white with a 2-inch green border (para 6a, CCR 385-1)?

YES	NO	NA
✓		
✓		
	✓	
✓		
	✓	
✓		
✓		
	✓	
✓		
	✓	
✓		
	✓	

	YES	NO	NA
* o. Does the safety board contain as a minimum those items listed in paragraph 6c, CCR 385-1? If not, explain <i>EMERGENCY TELEPHONE NUMBERS ARE NOT POSTED TO THE SAFETY BOARD.</i>		✓	
p. Is the safety board suitably equipped for local conditions? if not, explain.	✓		
q. Is CCR 385-1 posted to the safety board?	✓		
r. Has CCR 385-1 been included in the required periodic reading file?	✓		
s. Is there an emergency backup lighting system?	✓		
t. Is the emergency backup lighting system operated automatically when power failures occur? If not, explain.	✓		
u. Has the TCC incorporated appropriate safety measures to protect personnel from shock hazards while operating communications equipment (para 4, CCR 385-1)? If not, explain.	✓		
v. Are hand tools in serviceable condition? If not, explain.	✓		
w. Do any hand tools have taped handles (para 4a, CCR 385-1)? If so, explain.		✓	

x. Are power tools equipped with hand guards (para 4b, CCR 385-1)? If not, explain.

y. Are sufficient convenience outlets installed to preclude use of excessive adapters and/or extension cords? If not, explain.

z. Have appropriate HIGH VOLTAGE warning signs been posted (para 3b, CCR 385-1)? If not, explain.

aa. Are all permanently-installed electrical cabinets and equipment bonded to an approved ground (para 4aa, CCR 385-1)? If not, explain.

ab. Does the ground connection have sufficient mechanical strength to preclude accidental disconnection? If not, explain.

ac. Is the ground connection to chassis secured by --

(1) Spot weld to a terminal lug?

(2) Attachment to a portion of the chassis or frame that has been formed into a soldering lug?

(3) Use of a terminal on the ground wire held by a screw, nut and lockwasher?

YES	NO	NA
✓		
✓		
✓		
✓		
✓		
		✓
		✓
✓		

	YES	NO	NA
ad. Is the path to ground continuous and permanent?	✓		
ae. Do plugs and convenience outlets for use with portable tools, equipment and TMDE have provisions for automatic grounding of the frame or case when the plug is mated with the receptacle (para 4c, CCR 385-1)?	✓		
af. Are heavy current-consuming devices such as floor polishers and buffers equipped with three-conductor power cords that connect to an appropriate ground?	✓		
ag. Are any of the above-mentioned safety problems resolvable within TCC assets and/or capabilities? If not, explain.	✓		
13. MESSAGE QUALITY CONTROL PROGRAM (MQCP).			
a. Is the TCC receiving assistance visits from the connected ASC as part of the MQCP (chap 10, TM 11-490-2; ACP 121, US Suppl-1() and DCAC 310-D70-30)?	✓		
b. How many visits have been made during the past year by the connected ASC MQCP team? <u>ONE</u>			
c. Is the ASC MQCP team disseminating information to connected ASC's on team visits, schedules, results, competitive incentive award/recognition programs and related MQCP information?	✓		
d. Is an aggressive internal TCC MQCP being conducted IAW paragraphs 10-2d and 10-4a, TM 11-490-2?	✓		
e. Within the past year, has the TCC operated above the MQCP performance threshold (para 10-3b, TM 11-490-2)? If so, explain.		✓	
f. If connected to a non-Army ASC, is an MQCP service being provided the TCC?			✓

14. FACSIMILE COMMUNICATIONS.

a. Has the C-E officer established procedures to maintain operational control of equipment usage within his area of responsibility (AR 105-1)? Attach copy of any local directives/instructions.

b. Is the telecommunications control board reviewing facsimile communications?

c. Is narrative information of any type being transmitted/received via facsimile equipment? If so, explain.

d. Is other than routine Joint Uniform Telephone Communications System precedence being used for TCC facsimile transmissions via AUTOVON (para 758i, ACP 121, US Suppl-1())? If so, state authority.

e. Are facsimile automatic disconnect features in use as required (para 758i, ACP 121, US Suppl-1())?

f. Is a listing of documents and material which are prohibited by law from being transmitted via facsimile posted and available to TCC operators and supervisors (TBAG 4)?

g. Are DA Forms 3918-R properly prepared and released by originators?

h. What percentage of facsimile transmissions/receptions exceed three pages? NA %

i. Are facsimile communications which exceed three pages approved by commanders or designated representatives (AR 105-31)?

j. What percentage of facsimile transmissions are accomplished during business hours? NA %
Nonbusiness hours? NA %

YES	NO	NA
		✓
		✓
		✓
		✓
		✓
		✓
		✓
		✓
		✓

k. Are facsimile log and register entries IAW paragraph 11-3, TM 11-490-2)?

l. Are any problems experienced in operating a centralized facsimile service for customers? If so, explain.

YES	NO	NA
		✓
		✓

15. PUBLICATIONS CHECKLIST. Except for those asterisked (*), the following publications with appropriate changes are mandatory for retention within the TCC (para 1-3a, TM 11-490-1). Other publications may be retained when specific TCC requirements exist. Titles of below-listed publications may be found in paragraph 1-6 of CCP 702-7.

PUBLICATION NO.	ON HAND	
	YES	NO
DOD 5200.1-R	✓	
DCAC 310-D70-30	✓	
DCAC 350-135-1*	✓	
JANAP 128	✓	
(C) ACP 100() (Allied restricted)	✓	
(C) ACP 100 US Suppl-1()	✓	
(C) ACP 117() (Allied restricted)	✓	
ACP 117 US Suppl-1()	✓	
ACP 117 CAN - US Suppl-1()	✓	
ACP 117 US Suppl-2()	✓	
ACP 117 US Suppl-4()	✓	
(C) ACP 121() (Allied restricted)	✓	
(C) ACP 121 US Suppl-1()	✓	
(C) ACP 122()	✓	
(C) ACP 127() (Allied restricted)	✓	
ACP 127 US Suppl-1()	✓	
ACP 131()	✓	
ACP 131 US Suppl-1()	✓	
ACP 167()	✓	

NOTE: The team chief will indicate issue, change or date beside each publication or checklist.

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PUBLICATION NO.	ON HAND	
	YES	NO
AR 18-7*	✓	
AR 105-1*	✓	
AR 105-10	✓	
AR 105-17	✓	
AR 105-22	✓	
AR 105-31	✓	
AR 105-32	✓	
AR 105-34	✓	
AR 190-11*	✓	
AR 190-13*	✓	
AR 310-20	✓	
AR 310-50	✓	
AR 310-75	✓	
AR 340-16	✓	
AR 340-18-1	✓	
AR 340-18-5	✓	
AR 340-18-11	✓	
AR 350-1*	✓	
USACC Suppl 1 to AR 350-1*	✓	
AR 380-5	✓	
USACC Suppl 1 to AR 380-5*	✓	
AR 380-26	✓	
AR 380-40*	✓	

PUBLICATION NO.	ON HAND	
	YES	NO
AR 380-41*	✓	
AR 385-64*	✓	
AR 420-90*	✓	
(C) AR 530-1*	✓	
(C) AR 530-4*	✓	
DA Pam 310-1*	✓	
DA Pam 310-4*	✓	
DA Pam 310-7*	✓	
(C) MIL-HDBK 232*	✓	
(C) TB 530-1*	✓	
TBAG 4*	✓	
TM 11-490-1	✓	
TM 11-490-2	✓	
TM 38-750*	✓	
CCR 385-1*	✓	

16. PERSONNEL DATA WORKSHEET.

TDA WFF 3415DATE OCT 75

	OFF	WO	ENLISTED										CIVILIAN	TOTAL
			315	312	320	325	326	327	328	329	330	331		
MOS	0221	721A												
AUTH	1	3	4	2	5	8	4	1	4	5	0	6		88
ASGD	1	3	4	2	5	4	4	1	4	3	6	6		74

NOTE: List projected 90-day losses by grade and MOS; personnel shortages by grade and MOS; date and status of personnel requisition(s) submitted, if any.

REMARKS: TCC PRESENTLY SHORT 14 72G'S. THREE DUE-IN WITHIN 30 DAYS. ELEVEN REQUISITIONS PENDING. REQUISITION DATED NOV 75. SHORTAGE IN MOS 72G EXPECTED TO BE FILLED WITHIN 90 DAYS. ALL OTHER MOS ARE STABILIZED. THERE WERE NO 90 DAY LOSSES.

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17. SHIFT SCHEDULING OF PERSONNEL.

	OFF/WO	NCO		ENLISTED		CIVILIAN		TOTAL PERS
		OP	MAINT	OP	MAINT	OP	MAINT	
A SHIFT	1	3	3	10	5			22
B SHIFT	1	3	3	9	4			20
C SHIFT								
D SHIFT								
BUFFER SHIFT	1	3	3	8	4			19
OVERHEAD PERSONNEL	1	8	4	0	0			13
TOTAL	4	17	13	27	13			74

REMARKS:

12 HOURS PER SHIFT. TWO SHIFTS PRE-
SENTLY IN USE. BUFFER SHIFT UTI-
LIZED WHEN BREAKS ARE DUE.

18. COMMENTS. (Entries will be keyed to the specific paragraphs to which they pertain.)

- 1k. A DIRECT ACCESS DOOR IS NOT AVAILABLE BETWEEN THE MESSAGE CENTER AND THE TERMINAL OPERATIONS SECTION. WORK ORDER # 06-2-976-7618 APPROVED.
- 1w. AIR CONDITIONING UNIT NOT ADEQUATE DURING SUMMER MONTHS. WORK ORDER # 702-1-22-7601 APPROVED.
- 2a (1). INSTALLATION OF NEW AIR CONDITIONING UNIT WILL ELIMINATE DATA CARD PROBLEMS.
- 9a. TWO "UNCOVERED" WASTE CONTAINERS WERE PLACED NEAR THE TRANSMITTING EQUIPMENT. ON-THE-SPOT CORRECTIVE ACTION WAS EFFECTED.
- 11m. EMERGENCY DESTRUCTION AND EVACUATION PLANS WERE IN EXISTENCE, BUT THEY WERE NOT POSTED NOR WERE THEY INCLUDED IN THE MANDATORY PERIODIC READING FILE. STATION CHIEF TOOK ACTION TO CORRECT THE FALLACY.
- 11z. ONE REPRODUCTION MACHINE, MODEL 3M, DID NOT HAVE A WARNING LABEL PROHIBITING REPRODUCTION OF CLASSIFIED MATERIAL. CENTRALLY LOCATED MACHINE HAS BEEN DESIGNATED FOR THIS PURPOSE AND LABELLED ACCORDINGLY.
- 12c (3). FIRE PLAN WAS NOT INCLUDED IN THE MANDATORY PERIODIC READING FILE. ON-THE-SPOT CORRECTIVE ACTION WAS TAKEN.
- 12y. ONE OF THE TWO FIRE EXTINGUISHERS IS A WATER TYPE. SHOULD BE REPLACED WITH CO₂ TYPE. BOTH SHOULD BE POSITIONED AS FAR APART AS POSSIBLE.

- 12k. "NO SMOKING" SIGNS WERE NOT POSTED. SAFETY OFFICER TOOK CORRECTIVE ACTION.
 - 12L. OILY RAGS WERE FOUND IN THE BOTTOM OF A WALL LOCKER. RAGS WERE REMOVED.
 - 12M. SAFETY BOARD WAS INSTALLED BUT NOT PAINTED AS PRESCRIBED BY PARA 6a, CCR 385-1. STATION CHIEF WAS ADVISED OF APPROPRIATE ACTION TO BE TAKEN.
 - 12p. EMERGENCY TELEPHONE NUMBERS WERE NOT POSTED TO THE SAFETY BOARD. NUMBERS WILL BE POSTED AS SOON AS BOARD HAS BEEN PAINTED.
 - 16. FIFTY 72G's ARE AUTHORIZED AND 36 ARE PRESENT FOR DUTY WITH 3 DUE IN WITHIN 30 DAYS. THE SHORTAGE IS PRESENTLY CAUSING SOME PROCESSING DELAYS. THE OIC HAS TAKEN THE FOLLOWING ACTIONS.
 - a. EMERGENCY REQUISITION OF 72G's.
 - b. SHIFTS ARE ON 12 HR DUTY. TWO SHIFTS USED.
 - c. SKILLED PERSONNEL ASSIGNED WITH LESS SKILLED TO AFFORD TRAINING OF LESS SKILLED WHEN TIME ALLOWS.
 - 22. STEP 14 - ACK-1R AND ACK-2T LAMPS BURNED OUT. CORRECTIVE ACTION ACCOMPLISHED ON SITE.
 - STEP 24 - CANCEL-XMTED FAILED TO LIGHT, ONSITE PERSONNEL REPLACED A DEFECTIVE LOGIC CARD A2A9.
- NO DISCREPANCIES WERE NOTED AFTER EVALUATION.

NOTE: ABOVE COMMENTS ARE IN REFERENCE
TO THOSE AREAS MARKED WITH AN
ASTERISK (*) ON THE CHECKLISTS.
DISCREPANCIES NOTED ARE DIS-
CUSSED IN DETAIL IN PARAGRAPH
2.1.

DIGITAL SUBSCRIBER TERMINAL EQUIPMENT TESTS (CCR 702-1-3) DATA SHEET	PERIOD OF TEST: START <u>0800 Z</u> STOP <u>1000 Z</u>		DATE (DAY/MONTH/YEAR) (<u>29 Jan 76</u>) TEST ENCR SIGNATURE <u>James Smith, CW2</u>
	PASSED	FAILED	REMARKS
LOCAL TESTS			
High and Low Speed Paper Tape Punches	✓		
Card Reader	✓		
Page Printer	✓		
Low Speed Card Punch	✓		
Paper Tape Reader	✓		
Operation of Universal Keyboard with the HSPTP/LSPTP	✓		
Operation of Universal Keyboard with the Low Speed Card Punch	✓		
Lamp Audio Test CCU	✓		
Lamp Test Card Reader	✓		
Lamp Test Paper Tape Reader	✓		
Lamp Test Low Speed Card Punch	✓		
Lamp Test High Speed Card Punch	✓		

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LOCAL TESTS (cont)	PASSED	FAILED	REMARKS
Lamp Test Low Speed Paper Tape Punch	✓		
Lamp Test High Speed Paper Tape Punch	✓		
Lamp Test Page Printer	✓		
COMMENTS: <i>NONE</i>			

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DIGITAL SUBSCRIBER TERMINAL EQUIPMENT TESTS		PERIOD OF TEST: START <u>0800</u> Z STOP <u>1000</u> Z		DATE (DAY/MONTH/YEAR) (<u>29 Jan 76</u>) TEST ENGR SIGNATURE <u>James Smith, CDR</u>	
DATA SHEET					
MESSAGE HANDLING TESTS		PASSED	FAILED	REMARKS	
Paper Tape FIPS-14 Code JANAP 128		✓			
Paper Tape ITA #2 Code JANAP 128		✓			
Card Hollerith Code JANAP 128		✓			
Paper Tape ITA #2 Code ACP 127		✓			
COMMENTS: <u>NO DISCREPANCIES WERE NOTED DURING OR AFTER EVALUATION.</u>					

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DATA SHEET		OPTICAL CHARACTER READER (OCR) TESTS (CCR 702-1-3)		PERIOD OF TEST: START <u>0800</u> Z STOP <u>1800</u> Z		DATE (DAY/MONTH/YEAR) <u>(29 Jan 76)</u>		TEST ENGR SIGNATURE <u>James Smith, Cw2</u>		REMARKS
NO.	TEST	PASSED	FAILED							
1	INPUT MESSAGE FORM HEADER LINE FORMAT AND ACCURACY									
	a. Read Test Message 1-1	✓								
	b. Read Test Message 1-2	✓								
	c. Read Test Message 1-3	✓								
	d. Read Test Message 1-4	✓								
	e. Read Test Message 1-5	✓								
	f. Read Test Message 1-6	✓								
	g. Read Test Message 1-7	✓								
	h. Read Test Message 1-8	✓								
	i. Read Test Message 1-10	✓								
	j. Read Test Message 1-11	✓								
	k. Read Test Message 1-12	✓								
	l. Read Test Message 1-13	✓								
COMMENTS: <u>NONE</u>										

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OPTICAL CHARACTER READER (OCR) TESTS (CCR 702-1-3)		PERIOD OF TEST: START <u>0800</u> Z STOP <u>1000</u> Z		DATE (DAY/MONTH/YEAR) <u>29 Jan 76</u>		TEST ENGR SIGNATURE <i>James Smith, CW2</i>	REMARKS
DATA SHEET NO.	TEST	PASSED	FAILED				
2	INPUT MESSAGE FORM SECURITY AND DRAFTER'S RELEASE TIME VALIDATION						
	a. Introduce Test Messages	✓					
	b. Read Test Message 2-1 with "UUUU"	✓					
	c. Read Test Message 2-2 with "EEEE"	✓					
	d. Read Test Message 2-3 with "TTTT"	✓					
	e. Read Test Message 2-4 with "SSSS"	✓					
	f. Read Test Message 2-5 with "TTTT"	✓					
	g. Read Test Message 2-6 with "TTTT"	✓					
	h. Read Test Message 2-7 with "UUUU"	✓					

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NO.	TEST	PASSED	FAILED	REMARKS
2	INPUT MESSAGE FORM SECURITY AND DRAFTER'S RELEASE TIME VALIDATION (continued)			
	i. Read Test Message 2-8 with "3461330"	✓		
	j. Read Test Message 2-9 with "3461800Z"	✓		
	k. Read Test Message 2-10 with "34613430"	✓		
	l. Read Test Message 2-11 with "SSSS"	✓		
COMMENTS: <i>NONE</i>				

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OPTICAL CHARACTER READER (OCR) TESTS (CCR 702-1-3)		PERIOD OF TEST: START <u>0800</u> Z STOP <u>1000</u> Z		DATE (DAY/MONTH/YEAR) (<u>29 Jan 76</u>)	
DATA SHEET				TEST ENGR SIGNATURE <i>James Smith, CW2</i>	
NO.	TEST	PASSED	FAILED	REMARKS	
3	INPUT MESSAGE FORM CONTINUATION PAGE VERIFICATIONS				
	a. Introduce Test Messages	✓			
	b. Read Test Message 3-1	✓			
	c. Read Test Messages 3-3 and 3-4	✓			
	d. Read Test Message 3-5	✓			
COMMENTS: <i>NONE</i>					

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CCP 702-7

OPTICAL CHARACTER READER (OCR) TESTS (CCR 702-1-3) DATA SHEET		PERIOD OF TEST: START <u>0800</u> Z STOP <u>1000</u> Z		DATE (DAY/MONTH/YEAR) <u>29 Jan 76</u>	
				TEST ENGR SIGNATURE <i>James Smith, CW2</i>	
NO.	TEST	PASSED	FAILED	REMARKS	
4	SECURITY ALTERNATE ADDRESS LOOKUP				
	Introduce Test Messages 8-2, 9-1, 9-2, 9-3 and 9-4	✓			
COMMENTS: <i>NONE</i>					

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Sample TCC report. (continued)

OPTICAL CHARACTER READER (OCR) TESTS (CCR 702-1-3)		PERIOD OF TEST: START <u>0800 Z</u> STOP <u>1000 Z</u>		DATE (DAY/MONTH/YEAR) <u>(29 Jan 76)</u>	
DATA SHEET		TEST ENGR SIGNATURE		<u>James Smith, CW2</u>	
NO.	TEST	PASSED	FAILED	REMARKS	
5	LINE TYPING ON THE INPUT MESSAGE FORM				
	a. Introduce Test Messages	✓			
	b. Read Test Message 4-1	✓			
	c. Read Test Message 4-2	✓			
COMMENTS: <u>NONE</u>					

 USACC FORM 388-4-R (TEST)
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OPTICAL CHARACTER READER (OCR) TESTS (CCR 702-1-3)		PERIOD OF TEST: START <u>0800 Z</u> STOP <u>1000 Z</u>		DATE (DAY/MONTH/YEAR) <u>(29 Jan 76)</u>	
				TEST ENGR SIGNATURE <u>James Smith, CW2</u>	
DATA SHEET					
NO.	TEST	PASSED	FAILED	REMARKS	
6	PAGING				
	a. Introduce Test Message	✓			
	b. Read Test Message 5-1	✓			
COMMENTS: <u>NONE</u>					

 USACC FORM 388-5-R (TEST)
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OPTICAL CHARACTER READER (OCR) TESTS (CCR 702-1-3)		PERIOD OF TEST: START <u>0800 Z</u> STOP <u>1000 Z</u>		DATE (DAY/MONTH/YEAR) <u>(29 Apr 76)</u>	
		TEST ENGR SIGNATURE <u>James L. Smith, CW2</u>		REMARKS	
DATA SHEET					
NO.	TEST	PASSED	FAILED	REMARKS	
7	SECTIONING				
	a. Introduce Test Messages	✓			
	b. Read Test Message 6-1	✓			
	c. Read Test Message 6-2	✓			
	d. Read Test Message 6-1	✓			
COMMENTS: NONE					

 USACC FORM 388-6-R (TEST)
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OPTICAL CHARACTER READER (OCR) TESTS (CCR 702-1-3)		PERIOD OF TEST: START <u>0800</u> Z STOP <u>1000</u> Z		DATE (DAY/MONTH/YEAR) (<u>27</u> <u>Jul</u> <u>76</u>)	
DATA SHEET		TEST ENGR SIGNATURE <i>James Smith, Cu 2</i>			
NO.	TEST	PASSED	FAILED	REMARKS	
8	RI/ENTRY VIA CRT				
	a. Introduce Test Messages	✓			
	b. Read Test Message 7-1	✓			
	c. Read Test Message 7-2	✓			
	d. Read Test Message 7-3	✓			
	e. Enter Via the CRT Single Page Message	✓			
COMMENTS: <i>None</i>					

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OPTICAL CHARACTER READER (OCR) TESTS (CCR 702-1-3)		PERIOD OF TEST: START <u>0800</u> Z STOP <u>1000</u> Z		DATE (DAY/MONTH/YEAR) (<u>29 Jan 76</u>)	
DATA SHEET				TEST ENGR SIGNATURE <i>James Smith, CW2</i>	
NO.	TEST	PASSED	FAILED	REMARKS	
9	REJECT CHARACTER CORRECTION VIA CRT				
	a. Introduce Test Messages	✓			
	b. Read Test Message 8-1	✓			
	c. Read Test Message 8-2	✓			
COMMENTS: <i>NONE</i>					

USACC FORM 388-8-R (TEST)
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OPTICAL CHARACTER READER (OCR) TESTS (CCR 702-1-3)		PERIOD OF TEST: START <u>0800</u> Z STOP <u>1000</u> Z		DATE (DAY/MONTH/YEAR) <u>29 Jan 76</u>	
DATA SHEET				TEST ENGR SIGNATURE <u>James Smith, CW2</u>	
NO.	TEST	PASSED	FAILED	REMARKS	
10	MESSAGE COMPOSITION VIA CRT				
	a. Call Up Message Format on CRT	✓			
	b. Call Up Message Format on CRT SECRET	✓			
	c. Call Up Message Format on CRT TOP SECRET	✓			
	d. Call Up Message Format on CRT Plain Dress Message	✓			
COMMENTS: <u>NONE</u>					

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OPTICAL CHARACTER READER (OCR) TESTS (CCR 702-1-3) DATA SHEET		PERIOD OF TEST: START <u>0800 Z</u> STOP <u>1000 Z</u>		DATE (DAY/MONTH/YEAR) <u>29 Jan 76</u> TEST ENGR SIGNATURE <i>James Smith, CW2</i>	
NO.	TEST	PASSED	FAILED	REMARKS	
11	SEGREGATION OF RI'S BY AUTOMATIC SWITCHING CENTERS				
	Enter Message CRT AIG 888 and PLA's	✓			
COMMENTS: NONE					

 USACC FORM 388-10-R (TEST)
 1 MAR 77

OPTICAL CHARACTER READER (OCR) TESTS (CCR 702-1-3)		PERIOD OF TEST: START <u>0800</u> Z STOP <u>1000</u> Z		DATE (DAY/MONTH/YEAR) (<u>29 Jan 76</u>) TEST ENGR SIGNATURE <u>James Smith, CW2</u>	
DATA SHEET		PASSED	FAILED	REMARKS	
NO.	TEST				
12	AUTOMATIC RI/PLA UPDATE				
	a. Introduce Messages Via the OCR and CRT PLA's Not On File	✓			
	b. Call Up Routing Indicator/PLA List	✓			
COMMENTS: <u>NONE</u>					

USACC FORM 388-11-R (TEST)
1 MAR 77

OPTICAL CHARACTER READER (OCR) TESTS (CCR 702-1-3)		PERIOD OF TEST: START <u>0800 Z</u> STOP <u>1000 Z</u>		DATE (DAY/MONTH/YEAR) <u>29 Jan 76</u>	
		TEST ENGR SIGNATURE <i>James Smith, CW2</i>			
DATA SHEET			PASSED	FAILED	REMARKS
NO.	TEST				
13	PRIORITY PROCESSING OF TRAFFIC				
	a. Introduce Test Messages Via 915	✓			
	b. Open Pressure Gate	✓			
	c. Make Paper Tape Punch Ready Retry Option	✓			
COMMENTS: <i>NONE</i>					

 USACC FORM 388-12-R (TEST)
 1 MAR 77

OPTICAL CHARACTER READER (OCR) TESTS (CCR 702-1-3) DATA SHEET		PERIOD OF TEST: START <u>0800</u> Z STOP <u>1000</u> Z		DATE (DAY/MONTH/YEAR) <u>29 June 76</u> TEST ENGR SIGNATURE <i>James Smith, CW2</i>	
NO.	TEST	PASSED	FAILED	REMARKS	
14	INPUT MESSAGE FORM TEXTUAL FORMAT VERIFICATION				
	a. Introduce Test Messages	✓			
	b. Read Test Message 10-1	✓			
	c. Read Test Message 10-2	✓			
	d. Read Test Message 10-3	✓			
COMMENTS <i>NONE</i>					

 USACC FORM 388-13-R (TEST)
 1 MAR 77

DATA SHEET		OPTICAL CHARACTER READER (OCR) TESTS (CCR 702-1-3)		PERIOD OF TEST: START <u>0800</u> Z STOP <u>1000</u> Z		DATE (DAY/MONTH/YEAR) (<u>29 June 76</u>) TEST ENGR SIGNATURE <i>James Smith, CW2</i>	
NO.	TEST	PASSED	FAILED	REMARKS			
15	PLA ENTRY VIA OCR - TO-LINE VERIFICATION						
	a. Introduce Test Messages	✓					
	b. Enter Test Message 11-1	✓					
	c. Enter Test Message 11-2	✓					
	d. Enter Test Message 11-3	✓					
	e. Release the Message to System	✓					
	f. Enter Test Message 11-4	✓					
	g. Release the Message to System	✓					
	h. Enter Test Message 11-5	✓					
	i. Release the Message to System	✓					
	j. Enter Test Message 11-6	✓					
	k. Release the Message to System	✓					

 USACC FORM 388-14-R (TEST)
 1 MAR 77

CCP 702-7

15	PLA ENTRY VIA OCR - TO-LINE VERIFICATION (continued)
COMMENTS: <i>NONE</i>	

USACC FORM 388-14-R (TEST)
1 MAR 77

OPTICAL CHARACTER READER (OCR) TESTS (CCR 702-1-3)		PERIOD OF TEST: START <u>0800</u> Z STOP <u>1000</u> Z		DATE (DAY/MONTH/YEAR) <u>29 Jan 76</u>	
DATA SHEET				TEST ENGR SIGNATURE <i>James Smith, CW2</i>	
NO.	TEST	PASSED	FAILED	REMARKS	
16	READDRESSAL OF MESSAGES				
	a. Retype Message 3-5 with New FM and TO Lines	✓			
	b. Repeat the Procedure	✓			
COMMENTS <u>NONE</u>					

USACC FORM 388-15-R (TEST)
1 MAR 77

DATA SHEET OPTICAL CHARACTER READER (OCR) TESTS (CCR 702-1-3)		PERIOD OF TEST: START <u>0800 Z</u> STOP <u>1000 Z</u>		DATE (DAY/MONTH/YEAR) <u>29 Jan 76</u>	
				TEST ENGR SIGNATURE <i>James Smith, CWR</i>	
NO.	TEST	PASSED	FAILED	REMARKS	
17	ROUTING FILE UPDATE AND MAINTENANCE VIA THE OCR				
	a. Type in RFM Upper Left Corner of CRT	✓			
	b. Type in OCR in Line 2	✓			
	c. Terminate the Operation	✓			
COMMENTS: <i>NONE</i>					

 USACC FORM 388-16-R (TEST)
 1 MAR 77

OPTICAL CHARACTER READER (OCR) TESTS (CCR 702-1-3)		PERIOD OF TEST: START <u>0800</u> Z STOP <u>1000</u> Z		DATE (DAY/MONTH/YEAR) <u>29 Jan 76</u>	
DATA SHEET		TEST ENGR. SIGNATURE <u>James Smith, C002</u>		REMARKS	
NO.	TEST	PASSED	FAILED		
18	ROUTING FILE MAINTENANCE VIA CRT AND TT				
	a. Call Up Routing File Format	✓			
	b. Call Up Routing File Format	✓			
	c. Verify the Changes	✓			
	d. Type in TT on the CRT to Transfer Control	✓			
COMMENTS: <u>NONE</u>					

USACC FORM 389-17-R (TEST)
1 MAR 77

OPTICAL CHARACTER READER (OCR) TESTS (CCR 702-1-3', DATA SHEET		PERIOD OF TEST: START <u>0800</u> Z STOP <u>1000</u> Z		DATE (DAY/MONTH/YEAR) (<u>29 Jan 76</u>) TEST ENGR SIGNATURE <u>James Smith, CW2</u>	
NO.	TEST	PASSED	FAILED	REMARKS	
19	PLAIN LANGUAGE ADDRESS LOOKUP				
	a. Introduce Test Messages	✓			
	b. Select Several Plain Language Addresses	✓			
	c. Prepare UNCLASSIFIED, One-Page Messages	✓			
	d. Select Several Plain Language addresses	✓			
	e. Repeat Test 3-2	✓			
	f. Select Five Plain Language Addresses	✓			
	g. Prepare a One-Page Message, Type "(MAIL)" and "(COURIER)"	✓			
	h. Select an AIG	✓			
	i. Prepare a One-Page Message	✓			

 USACC FORM 388-18-R (TEST)
1 MAR 77

NO.	TEST	PASSED	FAILED	REMARKS
19	PLAIN LANGUAGE ADDRESS LOOKUP (continued)			
	j. Select an Invalid AIG	✓		
	k. Prepare a Single-Page Message	✓		
COMMENTS: <i>NONE</i>				

 USACC FORM 388-18-R (TEST)
 1 MAR 77

DATA SHEET OPTICAL CHARACTER READER (OCR) TESTS (CCR 702-1-3)		PERIOD OF TEST: START <u>0800Z</u> STOP <u>1000Z</u>		DATE (DAY/MONTH/YEAR) <u>(29 Jan 76)</u> TEST ENGR SIGNATURE <u>Jones Smith, CW2</u>	
		PASSED	FAILED	REMARKS	
No.	TEST				
20	SECURITY ADDRESS MISMATCH				
	a. Introduce Test Messages	✓			
	b. Select Several Plain Language Addresses	✓			
	c. Prepare CLASSIFIED, Multiple-Address Messages	✓			
COMMENTS: <u>NONE</u>					

 USACC FORM 388-19-R (TEST)
 1 MAR 77

OPTICAL CHARACTER READER (OCR) TESTS (CCR 702-1-3)		PERIOD OF TEST: START <u>0800</u> Z STOP <u>1000</u> Z		DATE (DAY/MONTH/YEAR) <u>29 Jan 76</u>	
DATA SHEET				TEST ENGR SIGNATURE <u>James Smith, CW2</u>	
NO.	TEST	PASSED	FAILED	REMARKS	
21	INPUT MESSAGE FORM ON-LINE PAPER TAPE/CARD RECEIVE TEST				
	a. Introduce Self- Addressed Test Message	✓			
	b. Read Test Messages 12-1 through 12-5	✓			
	c. Read Test Message 12-6	✓			
	d. Read Test Message 12-7	✓			
	e. Read Test Message 12-8	✓			
	f. Read Test Message 12-9	✓			
	g. Read Test Message 12-10 with "TTTT"	✓			
	h. Read Test Message 12-11 with "EEEE"	✓			
	i. Read Test Message 12-12 with "ZA3W"	✓			

USACC FORM 388-20-R (TEST)
1 MAR 77

NO.	TEST	PASSED	FAILED	REMARKS
21	INPUT MESSAGE FORM ON-LINE PAPER TAPE/CARD RECEIVE TEST (continued)			
	j. Read Test Message 12-13 with "UUUU"	✓		
	k. DCT 9000 in a Simulated Down Condition	✓		
COMMENTS: NO DISCREPANCIES WERE NOTED DURING OR AFTER EVALUATION.				

 USACC FORM 388-20-R (TEST)
1 MAR 77

TELETYPEWRITER CONTROL UNIT C-7050/G TESTS (CCR 702-1-3)		PERIOD OF TEST: START <u>0900 Z</u> STOP <u>1000 Z</u>	DATE (DAY/MONTH/YEAR) (<u>29 Jan 76</u>)
DATA SHEET			TEST ENGR SIGNATURE <u>James Smith, CW2</u>
REFERENCE: TM 11-5815-335-12	TEST		REMARKS
Step 14, p 5-5	Lamp Test Switches		
Step 17, p 5-5	Simulated Start Control Sequence		ACK-10, ACK-27 BURNED OUT.
Step 18, p 5-6	Simulated ACK-1 Control Sequence		GOOD
Step 19, p 5-6	Simulated ACK-2 Control Sequence		↑
Step 20, p 5-6	Simulated Repeat Control Sequence		
Step 21, p 5-6	Simulated Cancel Control Sequence		
Step 22, p 5-7	Simulated Retransmit Control Sequence		
Step 23, p 5-7	Simulated Stop Control Sequence		↓
Step 24, p 5-7	Manual Cancel Control Sequence		GOOD
Step 25, p 5-8	Manual Retransmit Control Sequence		INOPERATIVE. CORRECTED INSITE.
Step 28, p 5-9	Stop at EOM (Transmit)		GOOD
Step 29, p 5-10	Stop at EOM (Receive)		↑
Step 30, p 5-11	Abnormal Input Device Detection		↓
Step 31, p 5-12	Abnormal Output Device Detection		GOOD

USACC FORM 389-R (TEST)
1 MAR 77

REFERENCE:	TEST	REMARKS
TM 11-5815-335-12		
Step 32, p 5-13	Cancel During Transmission	GOOD
Para 2-17	Measure Timing	GOOD
Para 2-15b	Measure Power Supply Output Voltage	GOOD
--	TD Step (TCU or Crypto)	TCU
<p>COMMENTS: STEP 14 - ACK-11R AND ACK-2T LAMPS BURNED OUT. REPLACED BY ONSITE MAINTENANCE PERSONNEL.</p> <p>STEP 24 - WHEN MANUALLY CANCELING MSG, CANCEL-XMTED LAMP FAILED TO LIGHT. ONSITE MAINTENANCE PERSONNEL REPLACED A DEFECTIVE LOGIC CARD A2A9.</p> <p>NO DISCREPANCIES WERE NOTED AFTER EVALUATION.</p>		

USACC FORM 389-R (TEST)

1 MAR 77

TECHNICAL EVALUATION DATA SHEETS

TEST COVER PAGE		<input type="checkbox"/> PRELIMINARY <input checked="" type="checkbox"/> FINAL	DATE 30 Jan 76
DATA SHEET AN/FGC-25X Low Level			
FACILITY TESTED SEOUL KOREA		DISTANT FACILITY TAEJU ASC	
THROUGH FACILITIES: NONE			
TEST PERFORMED: TCT-1 THRU -5		<input type="checkbox"/> WITH MINOR MODIFICATIONS <input checked="" type="checkbox"/> AS SPECIFIED IN TEST PROCEDURES	
		<input type="checkbox"/> WITH MAJOR MODIFICATIONS (Explain below)	
COMMENTS NO DISCREPANCIES WERE NOTED AFTER EVALUATION FOR TESTS TCT-1 THRU -5			
STANDARDS/SPECIFICATIONS TESTS WERE PERFORMED IAW THE TEST PROCEDURES OUTLINED IN TM 11-5815-244-35 FIELD AND DEPOT MAINTENANCE MANUAL FOR TELETYPE WRITER SETS AN/FGC-25X, AN/FGC-16, AN/FGC-52, AN/FGC-57, AN/FGC-58 AND AN/UGC-30			
TEAM LEADER CERTIFICATION			
NAME (Typed) JAMES SMITH	GRADE CW 2	SIGNATURE James Smith	

 USACC FORM 351-R (TEST)
 1 OCT 76

Sample TCC report. (continued)

TELETYPEWRITER TESTS (CCR 702-1-3) DATA SHEET	PERIOD OF TEST	DATE (DAY/MONTH/YEAR)
	START <u>0800</u> Z	<u>(30 Jan 76)</u>
	STOP <u>1000</u> Z TT <u>100</u> WPM	TEST ENGR SIGNATURE <u>James Smith, CW2</u>
TCT-1 PERFORATOR POWER SUPPLY CHECKS		
PARAGRAPH	MEASUREMENTS	CORRECT RESPONSE
3-1e(2)(b)	<u>30 VDC</u>	30±1 VDC
TCT-2 PRINTER POWER SUPPLY CHECKS		
3-1e(3)(b)	<u>30 VDC</u>	30±1 VDC
3-1e(3)(e)	<u>1.9V / 70 ma</u>	2 VDC or less - current < 70 ma
TCT-3 TRANSMITTER TESTS		
3-1e(4)(c) <u>2</u>	<u>CORRECT</u> <u>TRANSITION</u> <u>AT 4%</u>	Oscilloscope display shows + and - transitions 6±0.6 VDC distortion analyzer indicates <5%
3-1e(4)(d) <u>2</u>	<u>SAME AS</u> <u>ABOVE</u>	Oscilloscope trace and distortion same as above
COMMENTS: <u>TCT-1 THRU TCT-3 - NO DISCREPANCIES</u> <u>NOTED</u>		

TELETYPEWRITER TESTS DATA SHEET	PERIOD OF TEST		DATE (DAY/MONTH/YEAR)
	START	0800 Z	(30 Jan 76)
	STOP	1000 Z	TEST ENGR SIGNATURE
	TT	100 WPM	James Smith, CW2
TCT-4 RECEIVER TESTS			
PARAGRAPH	MEASUREMENTS		CORRECT RESPONSE
3-1e(5)(a) <u>2</u>	-13 VDC / at 10 ma		-13±1 VDC between TP-2 (-) and TP-3 (+) Ammeter indicates selector magnet current of 10 ma
3-1e(5)(a) <u>4</u>	+13 VDC / at 10 ma		13±1 VDC between TP-2 (+) and TP-3 (-) Ammeter indicates selector magnet current of 10 ma
3-1e(5)(b)	+13 VDC / at 10 ma		Same as above
3-1e(5)(c) <u>1</u>	Rangefinder setting		
3-1e(5)(c) <u>4</u>	Zero bias range	80	Minimum of 72 pts of range at 60 WPM and 60 pts of range at 100 WPM
	Rangefinder setting	60	
3-1e(5)(d) <u>1</u>	Rangefinder setting 35% marking bias	70	
3-1e(5)(d) <u>2</u>	Rangefinder setting 35% spacing bias	30	
3-1e(5)(d) <u>3</u>	Bias tolerance (computed)	55	Bias tolerance ≥40% @ 60 WPM ≥35% @ 100 WPM

TELETYPEWRITER TESTS DATA SHEET	PERIOD OF TEST START <u>0800</u> Z STOP <u>1000</u> Z TT <u>100</u> WPM	DATE (DAY/MONTH/YEAR) <u>(30 Apr 76)</u> TEST ENGR SIGNATURE <i>James Smith, C-2</i>	
TCT-4 RECEIVER TESTS (continued)			
PARAGRAPH	MEASUREMENTS		CORRECT RESPONSE
3-1e(5)(e) <u>1</u>	Rangefinder setting 35% spacing end distortion	70	End distortion ≥35% @ 60 WPM ≥30% @ 100 WPM
3-1e(5)(e) <u>2</u>	Rangefinder setting 35% marking end distortion	30	Same as above
3-1e(5)(e) <u>3</u>	End distortion tolerance (computed)	55	Same as above
3-1e(5)(f)	Bias orientation point	50	Orientation should not exceed 6 dial divisions for bias or end points
	End orientation point	50	
COMMENTS: REF 3-1e(6)(c) <u>4</u> INITIAL POINTS OF RANGE OBTAINED WERE LESS THAN 60. MAINTENANCE PERSONNEL ADJUSTED REC MECHANISM AND 60 PTS OF RANGE AT 100 WPM WAS OBTAINED.			

TELETYPEWRITER TESTS		PERIOD OF TEST: START <u>0800</u> Z STOP <u>1000</u> Z	DATE (DAY/MONTH/YEAR) (<u>30 Jan 76</u>) TEST ENGR SIGNATURE <u>James Smith, CW2</u>
TCT-5 FUNCTIONAL TESTS			
REFERENCE:	PERFORMANCE STANDARD	COMMENTS	
TM 11-5815-244-35			
Para 15a(6)	Set switches as indicated in para 15a (1) thru (5). Carriage returns automatically after 72d character is typed (76th on TT-118F/G). End-of-line indicator lights at the 66th character (70th on TT-118F/G). Printed and punched tape is sharp and correct.	CORRECT RESPONSE	
15a(7)	Test message is correct. Carriage return line feed operations are correct after manual operation.	CORRECT RESPONSE	
15a(8)	Perforator bell rings after FIGS key and "S" (BELL) key is pressed.	CORRECT RESPONSE	
15b(2)	Insert tape in transmitter-distributor. Tape moves freely forward or backward with light hand pressure when STOP-START lever is in the FEED RETRACT position.	CORRECT RESPONSE	
15b(3)	Tape feeds steadily into the mechanism without binding when the STOP-START lever is in the START position.	CORRECT RESPONSE	

USACC FORM 390-R (TEST)
1 MAR 77

TCT-5 FUNCTIONAL TESTS (continued)		
Reference:	PERFORMANCE STANDARD	COMMENTS
TM 11-5815-244-35		
Para 15b(4)	Tape ceases to feed into mechanism when STOP-START lever is moved to STOP position.	CORRECT RESPONSE
15b(6)	Tape should stop when tight-tape lever is raised.	CORRECT RESPONSE
15b(7)	Tape ceases to feed when tape cover latch is operated.	CORRECT RESPONSE
15b(9)	Tape ceases to feed when end of tape feeds under the cover.	CORRECT RESPONSE
15b(10)	Tape is smooth and flat; code and feed-holes should be sharp and free of distortion.	CORRECT RESPONSE
15c(7)	Set switches as described in para 15c (1) thru (5). Tape feeds into transmitter-distributor mechanism.	CORRECT RESPONSE
15c(8)	Alternate R and Y message is printed on page printer. Turn rangefinder dial on page printer to maximum and minimum positions between which good copy is received. Note readings. Position rangefinder dial at midpoint between the two indicated readings.	ACTION TAKEN AS NOTED

USACC FORM 390-R (TEST)
1 MAR 77

TCT-5 FUNCTIONAL TESTS (continued)		
Reference	PERFORMANCE STANDARD	COMMENTS
TM 11-5815-244-35		
Para 15c(10)	Position rangefinder on perforator as indicated in para 15c(8) above.	ACTION TAKEN AS NOTED
15d	Automatic line feed and carriage return operate after the printing of the 72d (76th on TT-118) character on a line.	CORRECT RESPONSE
15e(1)	Page copy of test message should be printed by the page printing mechanism, and punched tape copy should be made by perforator when STOP-START lever is moved to START position.	CORRECT RESPONSE
15e(2)	Page copy should have proper carriage return and line feed. At the end of message, carriage returns and paper feeds. Paper should feed one and two lines when line feed lever is in the one or two position.	CORRECT RESPONSE
15f(6)	Set switches as indicated in para 15f (1) thru (5). Page copy of test message should be printed by the page printing mechanism, and a printed and punched tape copy should be made by the perforator. Both copies should be accurate and clear. Perforator copy should be correctly punched.	CORRECT RESPONSE

USACC FORM 390-R (TEST)
1 MAR 77

TCT-5 FUNCTIONAL TESTS (continued)		
REFERENCE:	PERFORMANCE STANDARD	COMMENTS
TM 11-5815-244-35		
Para 15g(2)	Set switches as indicated in para 15g(1). Page printer bell should ring when FIGS and "S" (BELL) keys are depressed.	CORRECT RESPONSE
15h(1)	Page printer motor should stop when FIGS and H (STOP) keys are depressed. On TT-118, motor stops when FIGS, BLANK and H keys are depressed.	CORRECT RESPONSE
15i(1)	Platen should shift to lowercase after FIGS key is depressed, and LTRS button on left side of page printer dust cover is depressed.	CORRECT RESPONSE
15i(2)	Carriage should return to the left side of page printer after positioning carriage to midpoint and depressing CAR RET button on right side of dust cover.	CORRECT RESPONSE
15i(3)	Carriage should move toward the right-hand margin when the manual space button located behind the right side of the platen is depressed.	CORRECT RESPONSE
15i(4)	Position switches as indicated in para 15f (1) thru (5). The perforator inking ribbon should move once for every two operations; the page printer inking ribbon should move with every operation.	CORRECT RESPONSE

USACC FORM 390-R (TEST)
1 MAR 77

TCT-5 FUNCTIONAL TESTS (continued)		
REFERENCE:	PERFORMANCE STANDARD	COMMENTS
TM 11-5815-244-35 Para 15i(5)	The page printer margin signal bell should operate, and the end-of-line indicator lamp should light when the carriage is positioned to the 65th space and the space bar is depressed one time.	<i>CORRECT RESPONSE</i>
15i(6)(c)	Set tabulator mechanism according to para 15i(6) (a) and (b). The indicator carriage should move to the right stopping at the first red tab set lever from the left when the space bar and REPEAT key are held down.	<i>CORRECT RESPONSE</i>
15i(6)(d)	The carriage should stop at the second red tab set lever from the left and all others that were initially set.	<i>CORRECT RESPONSE</i>
15i(6)(e)	Press the CAR RET key to cause the carriage to move to the left side of the page printer. Depress and hold the space bar and the REPEAT key. The carriage should move to the right side of the page printer without stopping after the tab locking lever is moved to the downward position.	<i>CORRECT RESPONSE</i>

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1 MAR 77

TEST COVER PAGE		<input type="checkbox"/> PRELIMINARY <input checked="" type="checkbox"/> FINAL	DATE 30 Jan 76
DATA SHEET CAU			
FACILITY TESTED SEOUL KOREA		DISTANT FACILITY TAEJU ASC	
THROUGH FACILITIES: NONE			
TEST PERFORMED: TCT-6		<input type="checkbox"/> WITH MINOR MODIFICATIONS <input checked="" type="checkbox"/> AS SPECIFIED IN TEST PROCEDURES	
		<input type="checkbox"/> WITH MAJOR MODIFICATIONS (Explain below)	
COMMENTS CAU 5N502 FAILED TO SYNC IN THE MANUAL MODE. TROUBLE WAS AN IMPROPERLY SEATED A1 CARD IN THE BLACK MODULE. TROUBLE WAS CORRECTED BY ONSITE MAINTENANCE PERSONNEL.			
STANDARDS/SPECIFICATIONS TESTS WERE PERFORMED IAW THE TEST PROCEDURES OUTLINED IN PARA 5-2, TM 11-5895-543-35.			
TEAM LEADER CERTIFICATION			
NAME (Typed) JAMES SMITH	GRADE CW 2	SIGNATURE James Smith	

CAU SYNCHRONIZER TESTS (TCT-6) (CCR 702-1-3) DATA SHEET	PERIOD OF TEST START <u>1000</u> Z STOP <u>1100</u> Z	DATE (DAY/MONTH/YEAR) <u>(30 Jan 76)</u> TEST ENGR SIGNATURE <i>James Smith, CW2</i>
REFERENCES: TM 11-5895-543-35 NAVSHIPS 0967-220-6021 TO 31W1-2G-222		
POWER SUPPLY CHECKS (para 4-6a, steps 1 thru 4)		
CORRECT RESPONSE	MEASUREMENTS	REMARKS
11.0 VDC	<u>11.0 VDC</u>	<u>GOOD</u>
-11.0 VDC	<u>-11.0 VDC</u>	<u>GOOD</u>
6.0 VDC	<u>6.0 VDC</u>	<u>GOOD</u>
-6.0 VDC	<u>-6.0 VDC</u>	<u>GOOD</u>
SYSTEM CHECKS (para 5-2)		
CORRECT RESPONSE	YES/NO	REMARKS
Synchronizes in manual mode.	<u>NO</u>	<u>REPAIRED ON SITE</u>
Performs an alarm check cycle followed by a sync cycle, then advances to monitor operation.	<u>YES</u>	<u>GOOD</u>
Originates an alarm check cycle followed by a sync cycle, then advances to monitor operation.	<u>YES</u>	<u>GOOD</u>
Pulls an alarm check cycle upon receiving a sync request from distant end.	<u>YES</u>	<u>GOOD</u>
Originates an alarm check cycle followed by a sync cycle, then advances to monitor operation.	<u>YES</u>	<u>GOOD</u>
Originates an alarm check cycle, makes three consecutive attempts to complete the cycle, then enters the master alarm condition.	<u>YES</u>	<u>GOOD</u>

CAU SYSTEM CHECKS (continued)		
CORRECT RESPONSE	YES/NO	REMARKS
Originates a sync attempt three times, fails trans operate, then enters master alarm condition.	YES	GOOD
Completes alarm check, three sync cycles, enters master alarm condition.	YES	GOOD
Alarm check and sync cycle complete.	YES	GOOD
Performs three op failures, then enters master alarm condition.	YES	GOOD

COMMENTS:

NO DISCREPANCIES NOTED
AFTER EVALUATION

TEST COVER PAGE		<input type="checkbox"/> PRELIMINARY	DATE
		<input checked="" type="checkbox"/> FINAL	28 Jan 76
DATA SHEET			
MD-674			
FACILITY TESTED		DISTANT FACILITY	
SEOUL KOREA		TAEJU ASC	
THROUGH FACILITIES: NONE			
TEST PERFORMED: TCT-7-1		<input type="checkbox"/> WITH MINOR MODIFICATIONS	
<input checked="" type="checkbox"/> AS SPECIFIED IN TEST PROCEDURES		<input type="checkbox"/> WITH MAJOR MODIFICATIONS (Explain below)	
COMMENTS			
<p>PARA 7-6c1a WAS INCORRECT. ONSITE MAINTENANCE PERSONNEL REPLACED A BAD A12 MODULE.</p> <p>ALL OTHER TESTS RESULTED IN CORRECT RESPONSE.</p>			
STANDARDS/SPECIFICATIONS			
<p>ALL TESTS WERE PERFORMED IAW CHAPTER 7, TM 11-5805-424-15.</p>			
TEAM LEADER CERTIFICATION			
NAME (Typed)	GRADE	SIGNATURE	
JAMES SMITH	CW 2	James Smith	

USACC FORM 351-R (TEST)
1 OCT 76

MODENS MD-674 & 700(P)/G TESTS (TCT-7) (CCR 702-1-3) DATA SHEET		PERIOD OF TEST: START <u>1400 Z</u> STOP <u>1500 Z</u>		DATE (DAY/MONTH/YEAR) <u>28 Jan 76</u> TEST ENGR SIGNATURE <i>James Smith, CW2</i>
REFERENCE: TM 11-5805-424-15 CHAPTER 7	PERFORMANCE STANDARD		COMMENTS	
TCT-7-1	MD-674(P)/G TESTS			
DATA TESTS				
Para 7-6cla	Meter indicates between -20 and 3 dbm. Signal light lamps. Distortion less than 3.5%.		INCORRECT RESPONSE ON SITE MAINTENANCE REPLACED MODULE AIR. TROUBLE CLEARED.	
7-6clc	Electronic counter should read designated frequency within ± 0.5 Hz.		CORRECT RESPONSE	
7-6cle	Electronic counter should not read any output frequency. Signal lamp lights. Meter reads maximum distortion.		CORRECT RESPONSE	
7-6c2a	Reversal patterns observed. Signal amplitude of 12 ± 2 volts.		CORRECT RESPONSE	
7-6c2b	Distortion 8% maximum or 2% for MX-7379/G.		CORRECT RESPONSE	
7-6c2c	Distortion 8% maximum or 5% for MX-7379/G.		CORRECT RESPONSE	

 USACC FORM 392-R (TEST)
 1 MAR 77

REFERENCE: TM 11-5805-424-15 CHAPTER 7	PERFORMANCE STANDARD	COMMENTS
TCT-7-1	MD-674(P)/G TESTS (continued)	
DATA TESTS (continued)		
Para 7-6c3c	Distortion 3.5% maximum for all units (2% for MX-7379/G). Reversal pattern should be evident on the telegraph test set.	CORRECT RESPONSE
7-6c3d	Distortion 3.5% maximum (2% for MX-7379/G).	CORRECT RESPONSE
7-6c4a	Distortion same as in para 7-6c3d above.	CORRECT RESPONSE
7-6c4c	Distortion 8% maximum (5% for MX-7379/G).	CORRECT RESPONSE
7-6c4d	Distortion 10±29% for a period of 1 to 5 seconds and return to 3.5% maximum (2% for MX-7379/G). Meter changes from -15 volts to zero. Talk request lamp lights.	CORRECT RESPONSE
7-6c4e	Distortion 3.5% maximum (2% for MX-7379/G). Meter changes from zero to -15 volts. Talk request lamp goes out.	CORRECT RESPONSE

USACC FORM 392-R (TEST)
1 MAR 77

REFERENCE:	PERFORMANCE STANDARD	COMMENTS
TM 11-5805-424-15 CHAPTER 7		
TCT-7-1	MD-674(P)/G TESTS (continued)	
TIMING TESTS		
Para 7-7c1a	Electronic counter indicates frequency equal to baud rate of EUT $\pm 2\%$.	CORRECT RESPONSE
7-7c1e	Pattern in same frequency but not necessarily in sync.	CORRECT RESPONSE
7-7c1f	Pattern synchronous with inputs with A & B aligned.	CORRECT RESPONSE
7-7c1g	Bottom timing waveform moves into sync with top.	CORRECT RESPONSE
7-7c2b	Electronic counter indicates frequency equal to baud rate of equipment. Scope observed same as in para 7-7c1f above.	CORRECT RESPONSE
ALARM TESTS		
7-8c1a	Meter reads 3 to -20 dbm.	CORRECT RESPONSE
7-8c1b	Alarm lamp lights approximately 2 seconds after meter indicates -15 volts.	CORRECT RESPONSE
7-8c1c	Meter indicates 10 ± 1 dbm less than para 7-8c1a above.	CORRECT RESPONSE

USACC FORM 392-R (TEST)
1 MAR 77

REFERENCE: TM 11-5805-424-15 CHAPTER 7	PERFORMANCE STANDARD	COMMENTS
TCT-7-1	MD-674(P)/G TESTS (continued)	
ALARM TESTS (continued)		
Para 7-8c1d	Meter indicates 5 ± 1 dbm less than para 7-8c1a above.	CORRECT RESPONSE
7-8c2a	Same as para 7-8c1a above.	CORRECT RESPONSE
7-8c2b	Alarm lamp lights approximately 2 seconds after meter indicates -15 volts. Meter indicates 20 dbm less than that recorded in para 7-8c1a above. Telegraph test set indicates maximum distortion.	CORRECT RESPONSE
7-8c2c	Meter indicates 10 ± 1 dbm less than para 7-8c1a above. Telegraph test set indicates maximum distortion.	CORRECT RESPONSE
7-8c3a	Scope indicates 6 ± 0.6 volts. Alarm lamp goes out.	CORRECT RESPONSE
7-8c3b	Scope indicates zero-volt level. 2 seconds after level is reached, alarm lamp lights.	CORRECT RESPONSE
7-8c3c	Scope should indicate 6 ± 0.6 volts. Alarm lamp goes out.	CORRECT RESPONSE
7-8c4a	Scope indicates 6 ± 0.6 volts.	CORRECT RESPONSE

USACC FORM 392-R (TEST)
1 MAR 77

REFERENCE:	PERFORMANCE STANDARD	COMMENTS
TM 11-5805-424-15 CHAPTER 7		
TCT-7-1	MD-674(P)/G TESTS (continued)	
	ALARM TESTS (continued)	
Para 7-8c4b	Scope indicates zero-volt level. 2 seconds after level is reached, alarm lamp lights.	CORRECT RESPONSE
7-8c4c	Scope indicates 6 ± 0.6 volts. Alarm lamp goes out.	CORRECT RESPONSE
7-8c5a	Scope indicates 6 ± 0.6 volts.	CORRECT RESPONSE
7-8c5b	Remove plug. Scope indicates zero- volt level. 5 seconds after plug is removed, alarm lamp lights.	CORRECT RESPONSE
7-8c5c	Reinsert plug. Scope indicates 6- volt level. Alarm lamp goes out.	CORRECT RESPONSE
7-8c6a	Scope indicates 6 ± 0.6 volts.	CORRECT RESPONSE
7-8c6b	Scope indicates zero-volt level. 5 seconds after wires are removed, alarm lamp lights.	CORRECT RESPONSE
7-8c6c	Scope indicates 6 ± 0.6 volts. Alarm lamp goes out.	CORRECT RESPONSE

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1 MAR 77

TEST COVER PAGE		<input type="checkbox"/> PRELIMINARY <input checked="" type="checkbox"/> FINAL	DATE 28 Jan 76
DATA SHEET COMSEC EQUIP			
FACILITY TESTED SEOUL KOREA		DISTANT FACILITY TAEGU ASC	
THROUGH FACILITIES: NONE			
TEST PERFORMED: TCT-8		<input type="checkbox"/> WITH MINOR MODIFICATIONS <input checked="" type="checkbox"/> AS SPECIFIED IN TEST PROCEDURES	
<input type="checkbox"/> WITH MAJOR MODIFICATIONS (Explain below)			
COMMENTS TCT-8-1 - TSEC KW-7/KWX-11 - NO DISCREPANCIES NOTED AFTER EVALUATION. TCT-8-2 - TSEC/KW-26 - DISCREPANCY CORRECTED ONSITE. NONE NOTED AFTER EVALUATION. TCT-8-3 - MODEM MD-674(P)/G AND TSEC/KG-13 - DISCREPANCY CORRECTED ONSITE. NONE NOTED AFTER EVALUATION.			
STANDARDS/SPECIFICATIONS TESTS WERE PERFORMED IAW ASSOCIATED COMSEC MANUALS.			
TEAM LEADER CERTIFICATION			
NAME (Typed) JAMES SMITH	GRADE CW 1	SIGNATURE James Smith	

 USACC FORM 351-R (TEST)
 1 OCT 76

Sample TCC report. (continued)

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COMSEC EQUIPMENT TESTS (TCT-8) (CCR 702-1-3) DATA SHEET		PERIOD OF TEST: START <u>0800 Z</u> STOP <u>1000 Z</u>	DATE (DAY/MONTH/YEAR) <u>28 Jan 76</u> TEST ENGR SIGNATURE <i>James Smith, CW2</i>
TCT-8-1 TSEC KW-7/KWX-11 EVALUATION TEST			
POWER SUPPLY			
Test performed as specified in para 4408 and table 3-10, KAM-143B			
Specifications: $\pm 1\%$			
VOLTAGE	MAXIMUM LOAD	MEASUREMENTS	
6 VDC	280 ma	<u>+7VDC INITIAL. CORRECTED ON SITE</u>	
-6 VDC	2 amps	<u>- 6VDC</u>	
-18 VDC	37 ma	<u>-18VDC / 37 ma</u>	
-24 VDC	275 ma	<u>-24 VDC / 275 ma</u>	
-53 VDC	175 ma	<u>-53 VDC / 175 ma</u>	
COMMENTS: <u>INITIAL READING OF +6VDC WAS +7VDC CORRECTED ON SITE. PROPER READING WAS OBTAINED.</u>			
OSCILLATOR			
Test performed as specified in table 3-19, KAM-143B			
Specifications: IAW above reference			
COMMENTS: <u>PROPER READING OBTAINED</u>			
ALARMS			
Test performed as specified in table 3-14, KAM-143B			

ALARMS (continued)

COMMENTS:

PROPER READING OBTAINED

TRANSMITTER DISTORTION

Input from tt: Measured	.6%	Min. Rqr	1%
Output from line: Measured	2.0%	Min Rqr	3%

COMMENTS:

DISTORTION READINGS WERE WITHIN
SPECIFICATIONS

CCP 702-7

<p>COMSEC EQUIPMENT TESTS (TCT-8) (CCR 702-1-3) DATA SHEET</p>	<p>PERIOD OF TEST: START <u>1200</u> Z STOP <u>1400</u> Z</p>	<p>DATE (DAY/MONTH/YEAR) <u>(28 Jan 76)</u></p> <p>TEST ENGR SIGNATURE <i>James Smith, CW2</i></p>				
TCT-8-2 TSEC/KW-26 EVALUATION TEST						
POWER SUPPLY						
<p>Voltages measured and adjusted as specified: Transmitter: Para 3103d, KAM-234A Receiver: Para 3104d, KAM-234A</p>						
<p>COMMENTS: <i>VOLTAGE READINGS WERE CORRECT</i></p>						
MASTER OSCILLATOR						
Xmtr and rcvr tested and/or adjusted IAW para 1301, KAM-235A						
<p>COMMENTS: <i>READINGS WERE CORRECT</i></p>						
DRIVER/CORE MARGINAL CHECKS						
Test IAW para 1202 and para 1203, KAM-235A						
DRIVER/ CORE	GOOD	MARGINAL	DRIVER/ CORE	GOOD	MARGINAL	REMARKS
T-0		✓	FC4	✓		<i>T0-T, PKB EXCHANGED FOR A GOOD ONE</i>
T-1		✓	FC5	✓		
T-3	✓		GO1	✓		
T-4	✓		N 7	✓		
T-6	✓		CR4	✓		
T-7	✓		S 7	✓		

DRIVER/CORE MARGINAL CHECKS (continued)						
DRIVER/ CORE	GOOD	MARGINAL	DRIVER/ CORE	GOOD	MARGINAL	REMARKS
T-9	✓		SC3, 4	✓		
T-10	✓		TB/TA	✓		
COMMENTS: <i>T₀ T, SN 15623 WAS MARGINAL. PACKAGE REPLACED BY ON SITE MAINTENANCE PERSONNEL</i>						
TRANSMITTER DISTORTION						
Input from tt: Measured				0.8%	Min Rqr	1%
Output to line: Measured				2.5%	Min Rqr	3%
COMMENTS: <i>DISTORTION READINGS WERE WITHIN SPECIFICATIONS</i>						
ALARM CHECK						
IAW KAM-234A						
COMMENTS: <i>GOOD</i>						

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<p style="text-align: center;">COMSEC EQUIPMENT TESTS (TCT-8) (CCR 702-1-3) DATA SHEET</p>	<p>PERIOD OF TEST: START <u>1500</u> Z STOP <u>1600</u> Z</p>	<p>DATE (DAY/MONTH/YEAR) <u>38 Jan 76</u></p> <p>TEST ENGR SIGNATURE <u>James Smith, CW2</u></p>	
<p>TCT-8-3 TSEC/KG-13 MODEM TEST</p>			
<p>KG-13 MODEM BIT ERROR RATE CHECK</p>			
NAME/LOCATION OF D/E	% DISTORTION	REMARKS	REQUIRED
<u>SEOUL KOREA</u>	<u>0.1%</u>	<u>GOOD</u>	0.5%
	<u>0.2%</u>	<u>GOOD</u>	0.5%
			0.5%
<p>COMMENTS: <u>READINGS WERE WITHIN SPECS AT BOTH ENDS OF THE CIRCUIT</u></p>			
<p>TSEC/KG-13 TIMING TEST</p>			
Xmit timing check	() Correct (X) Adjusted	Negative transitions of clock @ data midpoint	
Rec timing check	(X) Correct () Adjusted	Timing pulse occurs @ data midpoint	
<p>COMMENTS: <u>TRANSMIT TIMING WAS INCORRECT. ADJUSTED BY ON SITE MAINTENANCE PERSONNEL</u></p>			

APPENDIX C. ABBREVIATIONS

ACK	acknowledge
ACP	Allied communication publication
ADMSC	automatic digital message switching center
ADPE	automatic data processing equipment
AIG	address indicator group
AMSF	area maintenance supply facility
ASAP	as soon as possible
ASC	AUTODIN switching center
asgd	assigned
ATCAP	Army Telecommunications Automation Program
ATEP	AUTOSEVOCOM Technical Evaluation Program
auth	authorized
AUTODIN	automatic digital network
AUTOVON	automatic voice network
CANTRAN	cancel transmission
CAU	crypto ancillary unit
CC	card-to-card
CCSD	command communications service designator
CCU	common control unit
C-E	communications-electronics
chk	check
CIC	content indicator code
CID	Criminal Investigation Division
CIMS	communications improvement memorandums
CIU	console inquiry unit
COMSEC	communications security
CRT	cathode-ray tube
CT	card-to-tape
DA	Department of the Army
DAMO	Department of the Army Military Operations
DCA	Defense Communications Agency
DCS	Defense Communications System
D/E	distant end
DEFCON	defense readiness condition
DD/DOD	Department of Defense
DSTE	digital subscriber terminal equipment
DTE	dial telephone exchange
EAM	emergency action messages
EOM	end of message
EOT	end of transmission
EUT	events per unit time
FIFO	first in/first out by precedence
FIPS	Federal improvement processing system
HAZCON	hazardous condition
HDR/TRL	header/trailer
HSPTP	high speed paper tape punch
IAW	in accordance with
IMMDELREQ	immediate delivery required

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ind	indicator
INSCOM	Intelligence and Security Command
ITA	International Telegraph Association
JANAP	joint Army-Navy-Air Force publication
LDRI	line distribution rate increase
LIMDIS	limited distribution
LMF	language media format
LSPTP	low speed paper tape punch
LU	limited use
maint	maintenance
M&R	methods and results
MI	military intelligence
MISO	Management Information Systems Office
MOS	military occupational specialty
MQCP	Message Quality Control Program
M/T	magnetic tape
NC	no connection
NCOIC	noncommissioned officer in charge
O&M	operation and maintenance
OCR	optical character reader
OIC	officer in charge
OJT	on-the-job training
op	operate; operated; operation; operational; operator
OSRI	originating station routing indicator
PEP	Performance Evaluation Program
pers	personnel
PI	primary interest
PLL	prescribed load list
PLA	plain language address
QA	quality assurance
rec	receive
rel	release
RFM	routing file maintenance
RI	routing indicator
SAT	standard AUTODIN terminal
SC	site code
SEES	standard entry/exit system
SOP	standing operating procedure
sp	special
SPECAT	special category
SSN	station serial number
SUSDUPE	suspected duplicate
TBAG	technical bulletin Adjutant General
TCC	telecommunications center
TCT	telecommunications center test
TCU	teletypewriter control unit
TD	transmitter-distributor
TDA	tables of distribution and allowances
TEP	Technical Evaluation Program
term	terminal

TM	technical manual
TMDE	test, measurement and diagnostic equipment
TOE	table(s) of organization and equipment
TOF	time of file
TSCO	top secret control officer
TSEC	telecommunications security
tt	teletypewriter
UIC	unit identification code
USACC	US Army Communications Command
VIP	very important person
VOM	volt ohmmeter
WBT	wait before transmission
WPM	words per minute
xmit	transmit

FOR THE COMMANDER:

OFFICIAL

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